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ABSTRACT

This book is the product of a conference on the historiography of education and work that was held at Boys Town Center, Stanford University, on August 17-18, 1979. The central purpose of the conference and this report was to evaluate existing research and to develop and assess new interpretations of the historical development of linkages between education and work. Included in this report are the following seven papers, which were presented, critiqued, and discussed during the conference: "Enduring Resiliency: Enacting and Implementing Federal Vocational Education Legislation": "The Adolescence of Vocational Education": "Education and the Labor Market: Recycling the Youth Problem": "Making It in America: Work, Education, and Social Structure": "Marry, Stitch, Die, or Do Worse: Educating Women for Work in the American Republic": "The Historical Development of Black Vocational Education"; and "Observations on Selected Trends in American Working-Class Historiography." An introduction summarizing vocationalism in American education is also included. These papers focus primarily on the social, economic, and political context of vocationalism in American secondary education rather than on the details of particular programs and on the broader strategies of linking school to work rather than on tactics. Certain questions are presented in the preface which emerged from the conference as a common agenda for research. (Author/BM)

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WORK, YOUTH AND SCHOOLING: HISTORICAL PERSPECTIVES ON VOCATIONAL EDUCATION

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A report of a conference on the historical study of Education and Work, held at the Boys Town Center, Stanford University, August 17-18, 1979. We are grateful to the National Institute of Education for supporting this work under contract number 400-78-0042. The report does not, however, necessarily reflect the views of that agency.

Stanford University
December, 1979

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Abstract

There is widespread concern today about youth unemployment and the connection between school and work. Numerous studies and reports have identified the transition from school to work as a major social problem and have advanced a variety of plans to ease the transition from the classroom to the workplace. As in the past, however, there is today considerable controversy about what procedures make most sense and indeed how effective vocational education in its various forms can be in solving the problems it seeks to address.

This report provides a variety of historical perspectives on these issues, surveying existing research and generating new research questions which help place current debates in their historical context. Integrating recent historical research with economic and sociological theory it examines: the history of work, the assumptions which shaped the formation of early vocational policies, the implementation of vocational programs, the emergence of structural linkages between school and work, and the historical relationship between education and jobs for black, immigrant, and women workers.

To be sure, historical analysis cannot solve current policy dilemmas. But by examining the contrast between rhetoric and reality in past educational policies, the essays in this report provide policymakers with a knowledge of the past course of institutional and educational change that may offer a sense of future possibilities and alternative policies. A common general message of the essays is that education has been significantly related to work but that it alone cannot remedy deep structural problems in the economy or society.

PREFACE

This book is the product of a conference on the historiography of education and work that was sponsored by the National Institute of Education and held at the Boys Town Center, Stanford University, on August 17-18, 1979. In addition to the support from the National Institute of Education, the Boys Town Center has underwritten part of the costs of related earlier and follow-up studies. The planning committee for the conference was composed of Geraldine Clifford, Lana Muraskin, Marvin Lazerson, David Tyack and Arthur Wirth. The central purpose of the conference and this report has been to evaluate existing research and to develop and assess new interpretations of the historical development of linkages between education and work. A related task has been to examine policy issues that emerged from this historical analysis.

Seven papers were written and distributed prior to the conference. Seven other scholars gave searching criticisms of each of the studies, and the participants joined in wide-ranging discussion of the papers and of needed research. In addition to the authors and the discussants, a number of other interested persons participated in the conference (a list of authors, discussants, and other attenders is included as Appendix A). The present volume consists of the revised versions of the essays together with an introduction by Harvey Kantor and David Tyack.

A major function of the conference was to bring together specialists in historical sub-fields that too often develop in isolation from one another--a kind of academic splintering that afflicts history as it does other disciplines. In particular, we wished to profit from the expertise and diverse perspectives of specialists in the history of education, the history of workers and the workplace, and the history of youth. Thus the authors included James Anderson, an educational historian specializing in Black history; Geraldine Clifford, who is interested in the complex intersection of family, school, and work in the life cycle of individuals, especially young women; Larry Cuban, historian and school superintendent, who has written on the politics of education and the implementation of reforms in schools; Norton Grubb, an economist who has investigated the connections between schooling and labor markets; Herbert Gutman, a historian of the working class who has been particularly interested in the relationship between ethnicity and work experience; David Hogan, who has written on the education of the working class in Chicago and who is concerned about refining theories linking school and work; Joseph Kett, author of a comprehensive history of youth and of the historical portion of Youth: Transition to Adulthood; and Marvin Lazerson, an educational historian who has analyzed the origins and socio-economic context of vocational schooling. The conference discussion also benefitted from the wide range of special knowledge represented by our discussants and other attenders. In the group as a whole we sought diversity not only of historical sub-fields but also of points of view.

The papers and conference discussion focused primarily on the social, economic, and political context of vocationalism in American secondary education rather than on the details of particular programs, on the broader strategies of linking school to work rather than on tactics. Certain questions emerged in the essays and in discussion as a common agenda for research:

* Why did Americans seek educational solutions to economic, social, and political problems at certain points in our history?
* How do we understand the symbolic importance of the issues of schooling and work (e.g., the work ethic) without losing sight of economic and social realities?
* How realistic were the proponents of vocationalism in education in their assessments of changes in the workplace? How effective were the remedies they proposed to deal with those realities?
* What were the critical turning points in the history of vocational schooling (the problem of periodization)?
* In what ways did young people learn about and obtain jobs? How much did these routes into work differ by region, sex, ethnicity, and class?
* How important were entry jobs in shaping later work histories of individuals? Did this change substantially over time?
* To what degree did educational attainment or credentialism influence access to occupations?
* How can one assess the rate of return (of various kinds) of schooling to individuals and groups? In looking at Blacks or women, for example, was there a relative payoff within the boundaries of gender or caste?

The essays that follow explore some possible approaches to answering such questions and suggest further issues for future research. Because of a decision to focus on the broader context of vocationalism in education they do not pay much attention to life in classrooms. It would, of course, be possible to write a quite different book about vocational education, one that concentrated more on the in-school experiences of youth and less on the linkages to outside work or on the more comprehensive claims made for vocational training. Such an account might have stressed more of the benefits, manifest or latent, of students' experiences in vocational classrooms. Quite apart from whether vocational training did much to equalize opportunity or lessen unemployment in adult years, for example, shops and kitchens (like art classrooms) may have humanized schools for many pupils for whom the regular academic curriculum was boring or worse. A vocational emphasis may have lowered the drop-out rate. There were, no doubt, many motives for providing vocational schooling, many reasons why students entered classrooms in home economics or in industrial training, and many consequences of such programs both intended and unintended.

There are many ways of seeing both the past and the present. By examining assumptions and events over a long period of time, historians can perhaps assist policy-makers in education. It is from the past that people acquire the beliefs and institutions that structure perceptions and shape responses in the present. In the storehouse of historical evidence we can find many natural experiments on people who are now dead rather than live guinea pigs; we can find out how much earlier hopes and claims were justified by later events. Knowing, as earlier people could not, how things turned out, we can sometimes separate transitory phenomena from underlying forces, rhetoric from reality.

The message of several of these essays is that vocationalism in education cannot by itself solve basic structural problems in the economy, whatever its other possible benefits. That does not argue for sitting on one's hands. It can equally well mean that what we need to seek is a comprehensive plan for solving comprehensive problems, including an accurate sense of what schooling can and cannot accomplish.

David B. Tyack
Stanford University
December, 1979

Vocationalism in American Education: An Introduction

Harvey Kantor and David Tyack

At the turn of the twentieth century the idea of using schools to train young people for work captured the imagination of American reformers. Convinced that schools had failed to keep pace with changes in the nature and meaning of industrial life, they proposed a radical reorientation of purpose and curriculum in public education. The central task of the school, they argued, was to integrate youth into the occupational structure. To accomplish this required not only differentiated programs but also a new spirit of vocationalism. As one advocate remarked, school life should be permeated with "the idea that the school is to prepare for a vocation and that vocation is to be wisely selected."[1]

This contrasted with attitudes and practices common earlier in the nineteenth century. Although the idea of using schools to instill respect for manual labor had long appealed to reformers concerned about work, during most of the nineteenth century the primary goals of public schools were to teach elementary intellectual skills and to impart proper moral and civic attitudes. Most urban children only attended school for five or six years, usually leaving at twelve or thirteen to receive vocational training through apprenticeship or informal on-the-job training. Rural young people generally went to school at seasons when they were not needed for work on the farm, thereby lowering the opportunity costs of school attendance to nearly zero. They usually attended school for a few months a year for a span of several years.[2]

Rarely was school seen as a preparation for jobs either in the countryside or the city. Nor, by and large, did people expect that extended schools would necessarily influence one's future occupational prospects. As late as 1890, only 3.5 per cent of seventeen year olds graduated from high school. Many nineteenth century Americans, in fact, warned against the consequences of prolonged schooling, fearing that too much education might, as one Portland, Oregon newspaper editor observed in 1879, "graduate whole regiments of sickly sentimentalists: young gentlemen unused and unfit for work."[3]

In the first decades of the twentieth century, however, the idea of using schools to train young people for work energized a major social campaign, attracting almost every group in the nation with an interest in education. Social reformers, businessmen, farm leaders, labor spokesmen, and some educational leaders became convinced that schools should mediate between youth and the workplace -- or, as one proponent stated, "act as a transmitter between human supply and industrial demand."[4] It was the job of the public school to train young people for jobs and to guide them into occupations which suited their talents and interests and matched the occupational needs of their communities.

Both contemporary observers and later scholars generally agree that this movement marked a significant turning point in the history of American public education. Indeed, one of the most striking features of the turn-of-the-century ferment has been the permanence of the changes introduced. The idea that school should prepare young people for work has produced over the years numerous vocationally oriented curricula -- programs which attract a good deal of legislative support both from States and the Congress, employ growing numbers of teachers and administrators, and enroll students in a variety of courses ranging from career awareness in elementary grades to skill training in high schools.

There is little evidence, however, that these reforms have actually solved basic structured problems. Early advocates claimed that vocational education and guidance would alleviate a host of economic and educational ills. They would integrate immigrants into the labor force, slash worker turnover, lessen youth unemployment, end social alienation and labor unrest, and reduce school drop-out rates. Yet, during the last forty years, major evaluations of vocational programs have continued to point out serious shortcomings in vocational education's conception, implementation, and results. Although some studies have found that vocational graduates have lower unemployment and receive higher wages than other comparable students, the majority of studies have concluded that there is little substantial economic advantage to vocational as opposed to non-vocational preparation at the high school level.[5]

Even allowing for the rhetorical oversell which usually accompanies educational reforms, the hopes for vocational education seem to have been misplaced. As our colleagues suggest in this volume, by focusing on the character of the labor force rather than the structure of the work and the labor market, vocational reformers attacked the symptoms rather than the source of the conditions they hoped to cure.[6]

What, then, accounts for the rise and persistent popularity of vocationalism in American education? Why did so many reformers turn to schools to ameliorate the social ills of the first two decades of the twentieth century? How, moreover, have subsequent structural linkages between school and work been forged? Until recently, these questions provoked little debate. Historians of education -- following Ellwood Cubberley -- generally applauded the rise of vocationalism, since, it was argued, only by adding practical, relevant courses could schools meet the diverse needs of an expanding clientele without sacrificing public education's commitment to provide equal educational opportunity for all Americans.[7] In the last fifteen years, however, historians have painted a different picture of these events. 'Revisionist' historians have argued that vocational education and guidance were used to adapt young people to the unjust nature of corporate industrial society which was emerging at the turn of the twentieth century.[8] In a similar vein, Marxist historians and economists have hypothesized that vocational programs functioned to 'cool-out' the aspirations of working class children who flooded the schools — especially the high schools — after 1890.[9]

Criticism has come from other sources, too. Today, there is once again considerable concern about youth unemployment and the connection between school and work. Numerous reports and studies have identified the transition from school to work as a major social problem and have advanced a variety of programs to ease the transition from the classroom to the workplace. Yet contemporary policy analysts often differ markedly from reformers at the turn of the century. Whereas child labor was seen by earlier advocates of vocational education as a problem to be solved by prolonged schooling, now some analysts see compulsory schooling of youth as a problem to be solved by exposure to the workplace. The Coleman panel's Youth: Transition to Adulthood, for instance, argues that secondary schools segregate youth by age and shelter them from work and useful contact with adults. They propose that much of the responsibility for socializing young people to work be shifted from the school to the workplace itself.[10]

In retrospect it is puzzling that vocationalism in education appealed to such a wide spectrum of groups, including some -- like business and labor -- who generally regarded each other as adversaries. People of widely differing ideologies and interests agreed that vocational training might bring schools into better alignment with the economy. Several of the reformers made astute analyses of changed economic conditions during the early twentieth century. Paul Douglas, for example, showed how the work process had been factured and stripped of skill under the impact of industrial capitalism.[11] Businessmen and labor economists were acutely aware of labor turnover and unrest in the newly-organized factories. Advocates of vocational education differed among themselves over who should control the new programs and what should be their form and purpose. John Dewey, for example, challenged proposals for a separate system of vocational schools, arguing as some radicals do today that such a plan would create a stratified school system. Some reformers called for highly specific training in skills, while others were more interested in a "life-career-motive" that would permeate all instruction. Some proponents of vocational education wanted to produce docile employees willing to adapt to the new conditions of the workplace while others challenged the whole notion of a profit economy and wanted to restore, in Helen Marot's words, "the creative impulse in industry."[12] But whatever their ideologies or specific plans and interests, a wide spectrum of leaders saw vocationalism in education as a key to the restructuring of American society.

The following essays explore these and other related issues. Integrating recent historical research with economic and sociological theory they examine: the history of work, the assumptions which shaped the formulation of early vocational policies, the implementation of vocational programs, the emergence of structural linkages between school and work, and the historical relationship between education and jobs for blacks, immigrant working people, and women. In this introductory essay, we seek to provide a context for these chapters by examining the broad preconditions for vocationalism as well as the precipitants of specific changes in educational policies and programs.

Changes in Work: 1880-1920

The idea of using schools to instill respect for manual labor and to increase the efficiency of wage earners had long attracted reformers concerned about work. As Daniel Rodgers has recently pointed out, from the nineteenth century, social critics had attacked the narrowly academic curriculum of the grammar schools for overstocking the nation with clerks and ladies of leisure disdainful of manual labor.[13] It was not until the turn of the century, however, that pressure for change became intense. Beginning in the 1880's, schools were charged with being irrelevant to the economy, with failing to teach the skills needed for occupational mobility, and with ignoring the social consequences of modern industrial life. Groups from inside and outside the educational system demanded that schools abandon the traditional literary curriculum and adapt their programs to the needs of the economy. What prompted this outburst? While reformers often differed wildly in their interests and rationales for vocationalism, across a wide spectrum of opinion it was agreed that changes stemming from the spread of industrial captialism -- particularly changes in the organization of work -- made school reform imperative.

Between 1870-1920 the scope and character of the American economy underwent drastic change. As Robert Wiebe and Samuel Hays have shown, during these years a fragmented, regionally oriented economy characterized by small workshops and farms was transformed into a national urban-industrial network increasingly dominated by large corporations.[14] Industrial output expanded rapidly, quadrupling between 1870-1900 and doubling again in the next twenty years. At the same time, wealth was increasingly concentrated in the leading sectors of the economy until by 1920 the largest five per cent of all industries earned 79 per cent of total corporate net income.[15]

The changes in these years, however, involved more than rapid increases in output and the development of national markets. Corporate growth and consolidation also laid the foundation for an organizational transformation in American business. Most mid-nineteenth century firms, according to Alfred Chandler, were single unit enterprises which relied on market mechanisms to co-ordinate the activities of the economy and to allocate its resources. Operating in a limited geographic area, generally engaged in a single economic activity (e.g., production but not distribution or vice versa), and dealing in a single product line, these firms were relatively simple organizations. Indeed, in such enterprises, the function of management barely existed as a separate activity. Office and floor were closely linked, usually located in the same building, and the owner, with the help of a few trusted assistants, could personally supervise the firm's operations as well as co-ordinate other necessary business activities.[16]

By contrast, the corporate giants of the early twentieth century brought a wide range of economic activities under their control, taking over functions formerly performed by the market. Leading businesses added a host of new activities -- including marketing, sales, and advertising -- differentiated their product lines, and expanded their operations nation and world wide. In these enterprises, management became a vital concern. Once relatively simple in hierarchy and functions, businesses developed multi-level, functionally differentiated systems of organization to co-ordinate their various activities. They introduced elaborate statistical and budgetary procedures to plan future operations. And, finally, in place of the owner and his few trusted assistants, they turned increasingly to new schools of business and engineering to recruit professionally trained managers to oversee corporate operations.[17]

But the drive to centralize control of economic activity did not stop with new managerial and marketing arrangements. As managers began to rationalize the production and distribution of economic resources, they also turned their attention to the production process itself, altering the organization of work and the nature of the work process. The pace of these changes varied substantially from one industry to another and from place to place. In some industries, such as textiles and shoe manufacturing, they were well underway by the 1860's and 1870's. In others, older methods of work lingered into the first decades of the twentieth century. By by 1920 most observers agreed that in the leading sectors of the economy the workplace bore little resemblance to the craftsmen's shops and farms characteristic of the mid-nineteenth century economy.

The physical growth of the workplace was the most apparent change.

As the factory replaced the small workshop as the dominant mode of production, the scale of the workplace increased dramatically. As late as the 1850's most workers were employed in shops with fewer than ten employees, and factories with over 100 employees -- concentrated in the textile industry -- ranked as manufacturing giants. By 1900, however, the largest four manufacturing plants in the United States, each employed over 8,000 workers, and even these were modest by later standards. In 1909, for example, Cambria Steel had nearly 20,000 employees at its Johnstown plant; G.E. had 15,000 at Schenectady and 11,000 at its plant in Lynn; Pullman had 15,000 at its Chicago plant in 1913; and by 1916 the Ford plant at Highland Park employed 33,000 workers.[18] Small workshops persisted among these colossal enterprises, but they employed an increasingly smaller proportion of the labor force. Daniel Rodgers has calculated that in 1919, in the northern states east of the Mississippi River, three-fourths of the wage earners in manufacturing were employed in factories with more than 100 employees, and 30 per cent worked in firms with over 1,000.[19]

As the scale and speed of production expanded, employers and managers sought to systematize and centralize the control of factory operations. Unlike earlier manufacturing enterprises in which skilled workers retained wide discretion in the direction of their own work -- defining the timing and manner of production, determining the pace of work, ascertaining its cost and quality, and hiring and firing their own helpers -- the new factories removed control of production from the shop floor and centralized it in the hands of management. By 1900, for example, production control systems in many factories -- particularly in the machine tool industry -- included specification of parts, instructions for production procedures, direction of the movement of materials, and methods for controlling and recording the direct costs of operations. In each case, the objective was to enhance management's control of the production process, largely at the expense of the craftsman's autonomy, by shifting the control and knowledge of the production process from the shop floor to the office. Under this system of scientific management, wrote Frederick Winslow Taylor, its most prominent advocate, "the managers assume... all the burden of gathering the traditional knowledge which in the past has been possessed by the workmen and then classifying and tabulating, and reducing this knowledge to rules, laws, and formulae."[20]*

Similarly, as control of production was centralized, occupations became more specialized and the subdivision of labor became more minute. Increasingly, in the 1880's and 1890's, factory managers split the work process into smaller and smaller tasks, rendering many of the skilled trades obsolete. In the clothing industry, for example, where it had been common practice for a tailor to make an entire garment, coat manufacture was divided into 39 separate occupations and each garment passed through the hands of 50-100 workers.[22] A similar multiplication of occupations occurred in slaughtering and meatpacking. Prior to the 1890's, slaughtering and butchering had been a highly skilled craft -- as Walter Weyl and A. M. Sakolski remarked, the cattle butcher knew "the butchering business in all its details" and was able to perform his craft with one or two helpers." During the 1890's, however, managers of large packing houses introduced an extensive division of labor, fracturing the labor process into over thirty occupations with twenty rates of pay.[23] But these were only the most conspicuous examples of the subdivision of tasks. Between 1880-1920, the specialization of labor spread to a number of industries; not only tailors and meat packers but glass blowers, furniture and cabinet makers, iron molders and puddlers, carriage makers and a host of other skilled craftsmen saw their work divided and subdivided.[24]

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*It is difficult to determine how many firms introduced scientific management, particularly since many manufacturers adopted some of the principle's of Taylor's system yet were opposed to many of its specific components. Taylor's system, for example, also involved incentive wage schemes and plans for functional foremanship which many employers opposed. Still, the proliferation of cost accounting techniques, production control systems, and centralized purchasing suggests that many manufacturers adopted the principles of scientific management if not the specifics of Taylor's system itself.[21]

In most industries, moreover, the subdivision of labor was accompanied and stimulated by the mechanization of the production process. As the Lynds wrote in the 1920's, in numerous industries "the muscle and cunning of the master craftsman" had been replaced by "batteries of tireless iron men." [25] Nowhere, however, was the twin impact of specialization and mechanization more evident than in the newly emerging automobile industry. When the Ford Motor Company was founded in 1903, building automobiles was a task reserved for skilled craftsmen who had received their training in bicycle and carriage shops. According to Keith Sward, at the beginning of the twentieth century automobile making "revolved around the versatile mechanic, who was compelled to move about in order to do his work. Ford's assemblers were still all-around men."[26] By 1908, the job had been partially split up and there were several assemblers, each one responsible for fewer operations. But these changes were minor compared with what was to come, as the

Lynds' description of the auto part plant in Muncie, Indiana indicated. In the local plant, they reported in the 1920's, the worker "stands all day in front of his multiple drill press, undrilled rings being brought constantly to his elbow and his product carried away. Three times each minute, nine hours each day" he performs the same operation over and over.[27*]

These changes altered dramatically the nature and meaning of work. For, by undermining the draftsman's control of production they greatly reduced the need for appreciable skill on the factory floor. In numerous industries where mechanization and the specialization of labor were extensive, the relative importance of the skilled worker declined, while the relative importance of the semi-skilled operative increased. For example, in the steel industry, according to David Brody, prior to the 1880's the "rolling mills had required highly skilled men to catch and pass hot steel through the rolls... men of long experience and at a premium in America." By the first decade of the twentieth century, however, the steel mills were increasingly manned by semi-skilled operative "adept at routine mechanical duties which were not

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[*] Much recent scholarship has debated whether the organization of work reflects the desire of employers to control labor or whether it reflects the drive for efficiency under the competitive spur of the market. Historically, however, these twin drives are difficult to differentiate. As David Gordon has noted, those manufacturers who discovered the most successful combinations of efficiency and control probably gained comparative advantage over their competitors since they were both able to reduce costs and control their workers.[28]

Similarly, scholars have debated the impact of technological development on the organization of work. Generally, it is suggested that mechanization made large scale production, the systematization of tasks, and the rationalization of work an inevitable outcome. Yet, David Noble and others have recently challenged this 'neutral' conception of technology, suggesting that the forms of technology which have been developed, while certainly limited by the properties of matter, were also the technologies most appropriate to the social relations of a capitalist economy.[29]

comparable to the virtuosity of the hand rollers."[30] In many other industries as well, including older crafts as well as new manufacturing enterprises, the relative importance of the all-around skilled worker decreased. In shoe factories, textile plants, glass works, and furniture factories, as well as auto, steel, and electrical plants, the necessity for all-around skill declined as a monotonous repetition of movements came to dominate the production process.[31]

The transformation of work deeply eroded the apprenticeship system, for the notion of training a young worker in all the elements of a trade on the shop floor no longer made sense. In many transformed trades, which prior to the 1880's had required years of training and experience, operative jobs were so subdivided that they could be learned within a matter of weeks. According to the Lynds, for example, all the castings in a Muncie foundry in the 1890's had been made by highly skilled molders with years of experience, but by the 1920's over 60 per cent were made by semi-skilled machine molders who needed only a "fortnight or so of training."[32] Likewise, in the meatpacking industry, Walter Weyl and A. M. Sakolski reported in 1906 that any ordinary laborer could be trained in most meatpacking operations in less than a week.[33] Perhaps the most striking example of how little time was needed to learn a trade came from the experience of the Emergency Fleet Corporation in training workers for shipyard trades during World War I. As the shipyards called for unskilled workers to meet their increased demand for labor, it was reported that training periods in occupations from bolters to ship fitters required an average of nineteen days training.[34] In short, as many contemporary observers pointed out, it was no longer necessary for every worker to have a thorough knowledge of all the processes of a trade; in most occupations learning one branch or subdivision of a trade would suffice.

To be sure, the industrial transformation of work did not eliminate all skill. As Paul Douglas pointed out in his investigation of the skilled trades in 1921, highly skilled workers with a "thorough knowledge of the whole mechanism" were still prized in machine repair and maintenance. In fact, many corporations in the first decades of the twentieth century complained about the shortage of highly skilled machinists which resulted from the erosion of the old apprenticeship system, and they often established their own schools to recruit and train workers to repair and service the machines which were transforming the labor process. But, these men, Douglas reported, were "distinctly in the minority." More and more, he concluded, the typical factory job stripped the individual of the skill and judgment which had once been a necessity.[35]

On the other hand, if the need for all-around skill declined, the importance of supervisory and managerial functions increased. As the barriers distinguishing skilled from unskilled work gradually disintegrated, a hierarchical social division of labor -- based not so much on skills as on wages, status, and authority -- replaced it. In the steel industry, according to Katherine Stone, the technical division of labor was gradually replaced by "strictly demarcated job ladders, linking each job with the one above and below it in status and pay to make a chain along which workers could progress."[36] But these developments were not confined to steel. In many American industries, as David Hogan has documented, the social division of labor expanded.[37] Whereas in 1900 employers hired on the average one foreman for every 89 workers, by 1930 they hired one foreman for every 34 workers. But the foreman was only one link in an expanding managerial hierarchy. Increasingly, he, too, took orders from the college trained engineers and technicians who staffed the ranks of lower and middle management.[38]

Even the office was not immune from the drive to rationalize and centralize work. After 1900, as the clerical labor force expanded rapidly, employers applied the principles of scientific management and the subdivision of labor to the office, fracturing office work into numerous occupations -- typist, stenographer, bookkeeper, copyist, file clerk — and routinizing the operations of each job. In the process, most office work was also sexually segregated. Whereas the typical mid-nineteenth century clerk had been a male, working, as Harry Braverman has written, at a "total occupation", by 1920, offices were staffed largely by women working at subdivided, strictly supervised tasks which more and more resembled work on the factory floor.[39]

By 1920, then, work in America had been substantially re-organized: mechanization had replaced hand production, the minute specialization of labor was splintering the skilled trades, and the control and knowledge of production was increasingly removed from the shop floor and centralized in the hands of management, largely through the introduction of techniques of scientific management. Historians have debated how widespread these changes were. In many smaller firms, no doubt, older modes of production persisted. But, in leading manufacturing industries at the center of the American economy, few contemporary observers doubted that work had undergone dramatic change.

Responses to Changes in Work and the Workplace

The industrial transformation taking place in the second half of the nineteenth century sharply challenged mid-nineteenth century beliefs in the moral pre-eminence of work. As Daniel Rodgers and James Gilbert have shown, for many middle class Americans in the early and mid-nineteenth century, belief in the value of work formed the moral core of life. Work, many believed, built character, ingrained self-restraint, provided the chance for self-expression, and opened the path to deserved status and reward. Yet, as the century progressed, and factories grew larger and work more subdivided, it became increasingly difficult to justify the belief that hard work would build moral character or lead to economic success. Where, many middle class Americans asked, was the opportunity for the semi-skilled to learn the skills that would lead up the economic ladder? Amid the routine of the factory, where was the opportunity for self-fulfilling labor? Even in farming, which had been glorified as an arena for the formation of character through hard work, success seemed to depend more and more on fluctuations in world markets, on the manipulation of the currency, and on scientific knowledge and mechanical invention.[40]

If the new patterns of work challenged middle class assumptions about the moral benefits of work, on the factory floor they often produced opposition and conflict. As Herbert Gutman and others have shown, the advent of industrial capitalism often clashed sharply with working people's values and expectations, work habits, and sense of time. Clinging to their traditional, irregular, task-oriented styles of work, working people often opposed strenuously and at times successfully the tightly controlled, relentless pace of factory labor. Even in the highly disciplined shoe factories and textile mills, irregular work patterns persisted. Indeed, for many workers -- skilled and unskilled, native and immigrant -- in industrial America, adjustment to the regular, clock disciplined labor of the factory came slowly, if at all.[41]

Resistance to the new patterns of work took many forms, but one of the most astonishing responses -- at least by modern standards -- was the rate of labor turnover. Data gathered between 1905-1917 indicated that the majority of industrial workers switched jobs at least once every three years. Systematic studies of textile mills, automobile factories, steel plants, and machine works found that yearly turnover often exceeded 100 per cent. In one month alone -- December, 1912 -- the Ford Motor Company reported that 48 per cent of its employees left their jobs. Not all of this shifting from job to job was voluntary. Although employers did not keep systematic records until just prior to World War I, many workers were probably fired or laid off. While factory managers placed a premium on discipline and regularity, the industrial economy itself was highly unstable. In many industries -- including textiles, boot and shoe making, glassmaking, canning, meatpacking, and foundry work -- periods of intense activity were followed by weeks of idleness. Much of the turnover, moreover, was concentrated among the young, unskilled, and newly hired. Yet, most studies of turnover in the work force concluded that well over half of those workers who left their jobs did so voluntarily.[42]

Many workers -- particularly second and third generation craftsmen -- also resisted employers' assaults on their control of production. According to David Montgomery, as employers intensified their efforts to centralize the control of production, highly skilled craftsmen engaged in continual struggles to protect their autonomy and their control of the production process. Perhaps the most common strategy in both unionized and non-unionized trades was the "stint" -- an output quota fixed by workers themselves (Taylor called this "soldiering.") Among some groups of workers -- glassblowers, potters, iron molders, and puddlers in steel mills — these limits were openly acknowledged, but as the 1904 Commission of Labor survey on output restriction indicated, stints flourished throughout factories and were far more common than many investigators had suspected.[43]

Struggles also became increasingly militant. Between 1881-1905, Montgomery points out, control strikes (strikes over union rules and recognition) and sympathy strikes (strikes where different unions lent each other support in their battles to enforce union rules) became more common, especially in older industries where craft traditions were strong or craft unions dominated. Strike activity was not, however, limited to skilled craftsmen with long traditions of worker control of production. In the first two decades of the twentieth century, first generation immigrant laborers and machine tenders also participated in strikes. With little job control to defend, they usually struck for wage increases or against wage reductions. Many immigrant workers were attracted to the I.W.W., which conducted radical strikes over wages and working conditions from the textile mills in Lawrence, Massachusetts, to the migrant labor camps in California.[44]

Even in the political arena, there were signs of discontent and unrest during these years. Between 1900-1920, the Socialist Party scored several local electoral victories. And in the Presidential elections of 1912 and 1920 the Socialist candidate, Eugene Debs, won over 1,000,000 votes.

In the face of this varied opposition, manufacturers, businessmen, and social reformers proposed a variety of programs to integrate workers into the altered system of production and to make the new forms of work more palatable. Beginning in the 1890's, many firms -- eventually including U.S. Steel, General Electric, and other large manufacturers -- introduced profit sharing plans, stock purchase options, and wage incentive schemes, hoping to ameliorate the rigors of factory labor by giving workers a "stake" in production. Other efforts -- known as welfare work -- aimed at promoting workers loyalty through improvements in plant safety, the provision of company pension plans, and the sponsorship of a number of social services such as relief associations, libraries, clubs, and classes. For example, the H. J. Heinz Company of Pittsburgh, a pioneer in this type of activity, added a "recreation room, a relief association, annual outings, and perhaps the first of the welfare secretaries, a 'Mother Dunn' who was charged with hiring and firing as well as checking on absentees and counseling those in need."[45]

By no means did all employers adopt these policies. Although a few far sighted industrialists such as Gerard Swope at General Electric, H. J. Heinz, and Edward Filene systematically pursued this corporate program, others insisted that productivity and profits would be boosted only by limiting costs and only reluctantly abandoned old labor policies -- often under the pressure of strikes, continued high turnover, and efforts of social reformers and labor unions to pass legislation mandating improvements in plant safety, workmen's compensation, and the abolition of child labor. Yet, by 1914 one report fround that 2,000 firms had already introduced welfare plans for their 1,500,000 workers.[46] One manufacturer pointed out that welfare work was not simply a result of humanitarianism sentiments, but was "conducting business on business principles."[47]

Concern about labor unrest and turnover also led to the creation of employment and personnel departments to select and hire employees for jobs. Where hiring and firing had once been the prerogative of skilled workers or foremen on the factory floor, by the second decade of the twentieth century it was increasingly systematized in centralized personnel departments staffed by professionally trained personnel managers. Turning to professional psychology and sociology, personnel managers experimented with systematic procedures to match employees with jobs, including job analysis to determine the component skills of different jobs and batteries of vocational tests to determine whether a particular worker possessed the desired physical and mental traits appropriate for a given job.[48] Like welfare work — out of which they grew — personnel departments were initially concentrated in large firms, such as Ford, Goodyear, General Electric, and Westinghouse. Many other firms continued to rely on informal mechanisms to recruit and hire workers. But, by 1911, fifty company officials had met to form the Employment Managers Association and by 1918 the association had 900 members at its convention.[49]

Welfare and personnel work was one response to the tensions and conflicts produced by the spread of industrial capitalism. State labor legislation was another. Between 1890-1920, for example, several states enacted laws regulating the physical environment of the factory and restricting the labor of women and children. They also established a number of administrative bodies, including state factory inspection bureaus, to enforce these laws. There were other responses, too. In the aftermath of World War I, there was even a brief flurry of interest in some quarters in plans for "industrial democracy." Some employers introduced "employee representation plans" and set up "works committees" where managers and workers could meet to discuss problems of production and to consider grievances.[50] Yet few of these crusades attracted as much attention or were as widely discussed as educational reform. Increasingly, as James Gilbert has pointed out, it was to education -- especially vocational education -- that Americans turned for a response to industrial unrest and social alienation.[51]

The Rise of Vocationalism, 1890-1920

Between 1890-1920, the movement for vocational education attracted, as we have said, the support of almost every group in the country with an interest in education. Businessmen, manufacturers, labor leaders, farm leaders, social reformers, intellectuals, and educators all joined the campaign to vocationalize the schools. The movement was, one educator remarked in 1908, "like the Klondike goldrush" and by 1917 it had resulted in the passage of the Smith-Hughes Act mandating federal funds for vocational training in public schools.[52]

One of the most vocal advocates of vocational education was the National Association of Manufacturers (NAM), which began in the 1890's to ask how schools could assist in the growing international competition for markets. Alarmed by German's rapid rise to international economic power and impressed with the German system of vocational schools -- which provided finely calibrated skills needed in specialized commerce and industry -- the NAM pressed hard for two decades to introduce trade schools, continuation schools (part-time schools), and vocational guidance into American education. Initially, many industrialists and commercial employers created such schools in their own companies. As part of their personnel and welfare work, several large manufacturers -- including General Electric, Westinghouse, American Telephone and Telegraph, and U.S. Steel -- created their own "corporation schools" to recruit and train workers to repair machines, to teach lower level managers, and to train workers for the white collar positions, such as clerk, salesman, and typist, which expanded rapidly after 1880. But eager to socialize the costs of such instruction by public funding, employers joined with others in the coalition that successfully lobbied for the Smith-Hughes Act.[53]

How could vocational education aid American business in international competition? The NAM advanced several arguments for vocational education, but three stand out. First, NAM leaders argued that modern industry suffered from a shortage of highly skilled workers. Mechanization and specialization, they argued, had undermined the old apprenticeship system and made informal on-the-job training inefficient; consequently, the shortage of skilled workers could only be filled by specialized skill training in separate schools. Second, the NAM hoped that vocational education would help stabilize the work force. Better trained workers, they argued, would understand and appreciate their role in the specialized industrial economy; hence, absenteeism and turnover would decline, resulting in increased efficiency and output. Finally, NAM leaders expected that vocational education would weaken union control of job entry and thereby help establish management's prerogatives for the administration of the factory. As one businessman put it, it was time to snatch workers' education from "the hands of the trade unions, the hands of the Industrial Workers of the World, and Socialist Party."[54]

Labor leaders were understandably reluctant to join a movement with such an anti-union bias. Earlier experiences with private trade schools which had been created by manufacturers to by-pass union controlled apprenticeship programs -- and had, in some cases, provided students as strike breakers -- reinforced their doubts about vocational education. In addition, many labor leaders were suspicious of business influence in the public schools and believed that many teachers were hostile to organized labor. By 1910, however, the AFL's Committee on Industrial Education expressed support for industrial training in the public schools.

Why the AFL shifted its position is not entirely clear -- more research is needed, especially on attitudes of local labor leaders -- but historians have suggested at least three reasons. First, Arthur Wirth has observed that union people shared with businessmen the conviction that schools were boring, abstract places which were irrelevant to the needs of workers' children. "The pupils," it was reported at the 1909 AFL convention, "become tired of the work they have in hand, and see nothing more inviting in the grades ahead. They are conscious of powers, passions, and tastes which the school does not recognize. They long to grasp things with their own hands and test the strength of materials and the magnitude of forces."[55]

Second, as Norton Grubb and Marvin Lazerson have stressed, by 1910 union leaders recognized that the vocational movement was gaining widespread support. Hence, they acted to counter business domination, believing that union participation could mitigate ill effects by insisting on public rather than private sponsorship of vocational training, the participation of labor in decision making, and the avoidance of extreme specialization in trade training. As one AFL member stated in 1912, "We cannot stop the trend in the direction of this kind of education in the school; but, we can, if we cooperate with the educators, have it come our way."[56]

Finally, the AFL position on vocational education reflected ambivalence within the labor movement about the kind of future that workers should hope for within the capitalist division of labor. On one side were those who believed that their members were likely to remain workers and therefore could benefit from practical training which would lead to higher pay. On the other side were those who hoped that their children would rise to become foremen or salaried white collar workers and therefore feared that vocational training would create a stratified school system, denying their children the education which would lead to economic mobility. Which of these views shaped the final form of organized labor's position on vocational education is not entirely certain. It does appear, however, as Grubb and Lazerson have written, that labor's final position reflected the assumption "that it was not powerful enough to defeat a coalition of businessmen and educators, and would therefore have to concentrate on preventing business domination."[57]

A third source of support for vocational education came from middle class activists and social scientists, many of whom were active in other social reform efforts during these years. Among the supporters of vocational education, for example, were Jane Addams, Edith Abbott, Frank Parsons, Paul Douglas, John Dewey, and child labor reformer Owen Lovejoy. Alarmed that mechanization and specialization of labor had robbed work of its creative potential, these reformers hoped that vocational training might restore meaning to work, promote industrial democracy, and gradually supplant child labor. By uniting general and practical education, Jane Addams argued, vocational education would help workers see the full dimensions of their labor, thereby restoring meaning and dignity to work that had been fractured and de-skilled by the new industrial processses. It would, moreover, teach the value of industrial cooperation and instruct young people how to work together in democratic association. Perhaps, some even suggested, vocational education would be the first step in the transformation of the workplace. Owen Lovejoy told a convention of the National Society for the Promotion of Industrial Education (NSPIE) in 1913 that vocational educators must demand jobs worthy of young people. To the "captains of industry" who ask "'Here are the jobs: what kinds of children have you to offer,'" educators must reply, said Lovejoy "'Here are your children: what kind of industry have you to offer.'" Indeed, Professor Frank Leavitt of the University of Chicago added, "Why should we hesitate to lay hands on industry in the name of education when we have already laid hands on the school in the name of industry?"[58] Even the National Education Association (NEA) joined the crusade to transform industry through education. Caught up in the post World War I fervor of industrial democracy, the Association passed a resolution in 1919 which stated that

> industry in this country must be reorganized. All industry must become educational to those who engage in it. The workers must find in their work an opportunity for self-expression and self-development. Human -- not commercial -- value must be placed first in our great industrial establishments. The rank and file of those who produce the wealth must, through their organization, share in the control of the policy of the institutions for whom they work.[59]

These views contrasted sharply with the vision of employers who hoped that vocational education would provide practical skill training and adjust young people to the fragmented labor of the factory. They also differed from the views of many other vocational educators who stressed the need for industrial efficiency. To vocational leaders such as David Snedden, Massachusetts Commissioner of Education, and Charles Prosser, executive secretary of NSPIE, the vision of Addams and her colleagues was vague and impractical. Vocational education, they contended, should be geared to the practical needs of industry -- to the immediate practical skills which might help workers succeed in industrial occupations and perhaps move up a notch or two on the economic ladder. Vocational education and guidance, Prosser told the NEA in 1912, must fit "the great mass of our people for useful employment." It was time, he added, to establish separate vocational programs -- college preparatory, commercial, industrial arts, and domestic science -- to impart specific vocational skills and to match young people with jobs which suited their interests and capabilities:

> More and more, in our theory of the American public school system, we are swinging around to the idea that it is to be the mission of the schools of the future to select by testing and training -- to adjust boys and girls for life by having them undergo varied experiences in order to uncover their varied tastes and aptitudes and to direct and to train them in the avenues for which they display the

> most capacity. Such a program would require a differentiation of the course of study for pupils between 12 and 14 years of age.[60]

This vision of practical, differentiated schooling also appealed to many social reformers, educators, and social investigators who were beginning to worry about high drop-out rates -- especially among immigrant, working class youth between the ages of 14 and 16. Beginning in the early twentieth century, numerous studies indicated that tens of thousands of urban youth between the ages of 14 and 16 were leaving school without completing the eighth grade.[61] Study after study arrived at similar explanations for early school leaving: the children disliked school, preferred to work, and the child's wages were needed to supplement family income. Indeed, many disliked school intensely. Helen Todd, a factory inspector in Chicago, interviewed 500 working children in 1908; 412, she reported, stated that they preferred to work in a factory rather than go to school, even if their families did not need the additional income.[62] In Milwaukee, in 1922, the school system offered working children 75¢ a day -- comparable to the young worker's average wage -- to attend full-time public school; out of 8,000 youth, only 16 accepted this offer.[63]

The studies also reached similar conclusions about the types of jobs these children found: unskilled, poorly paid, often seasonal, with high turnover, poor working conditions, and few opportunities for advancement -- what the investigators labeled "dead-end," "blind-alley" jobs and what economists today often call the secondary labor market. One study of 14,000 working children in Philadelphia in 1912 reported that only 3 per cent were in skilled trades; the others entered jobs with "little or no opportunity for improvement and no competence at maturity."[64] Surveys of working children in New York, Chicago, St. Louis, and other cities reported similar conclusions. In Chicago, for example, a study of working youth between 14 and 17 reported that only 7 per cent were in skilled occupations where they received any training; in New York, only 5.2 per cent were in such occupations; and in St. Louis, 88 per cent entered unskilled jobs.[65]

In addition, surveys indicated that young people only remained at jobs for a few months. In Rochester, New York, for instance, young people 14-16 changed jobs about three times a year; in New York City, about one-third of working youth changed jobs six times a year; and, in Maryland, over 50 per cent reported that they had held their present job for less than two months. The investigators uniformly labeled these youth as victims and losers -- children whose health was poor, whose parents exploited them, and who were frequently mentally sub-normal -- and predicted that they faced bleak economic futures. Summarizing the findings of these numerous studies and surveys, Paul Douglas described the experience of these youth as drifting "from job to job, from industry to industry, still unskilled and exposed to all the social and industrial evils which threaten adolescence." Consequently, he concluded, when the child becomes an adult, he or she "finds himself one of the class of the permanently unskilled with the attendant low wages and unemployment of his class."[66]

Some investigators, such as Douglas, recognized that early school leaving was an economic necessity for many youth. But many others labeled poverty an excuse and looked elsewhere for explanations. Some blamed parents, especially immigrant parents, who, they argued, did not recognize the importance of additional schooling or were greedy for the extra income which their children brought home. Yet many blamed the schools. The traditional curriculum, they asserted, was irrelevant to the needs of these youth. "The great lack," the report of the Massachusetts Commission on Industrial Education stated in 1906, "is in the system, which fails to offer the child of fourteen continued schooling of a practical character."[67] What these children wanted and needed, this report stated, as did many others like it, was an education adapted to their economic futures -- in short, a curriculum specifically directed at future employment.

Would additional vocational training until age 16 eliminate low-paying, unskilled factory labor for working class youth? Most evidence suggested otherwise. Several studies of working children showed little or no difference between the wages of those working children who had completed elementary school and those who had not; and, in most jobs open to youth, even some high school attendance appeared to make little difference in income.[68] Yet few vocational reformers confronted this reality. Mostly middle class professionals — who had come to think of occupations as careers requiring extensive training and preparation -- they hoped that all work might be reformed by shaping it to professional models. Just as professional school paved the way for a well rewarded career in medicine, law and other professions, they believed that vocational training might lead to a well rewarded "career" in the factory. Yet the earnings of factory workers in Philadelphia peaked at age 25. Working class families probably had a more accurate picture of the real labor market than did the middle class reformers who wanted them to have a "life-career-motive."[69]

By 1910, these diverse groups agreed that some form of vocational education was needed and that it should be publicly sponsored, but they often battled vigorously over who should control vocational training and for what purposes. On one side were proponents of separate vocational schools. Scornful of the cultural claims of academic educators and mindful of the need for close cooperation between vocational programs and local industry, the advocates of separate schools -- including businessmen, manufacturers, and a wing of vocational reformers led by Snedden and Prosser -- stressed the need for narrow vocational training to teach specific skills for particular jobs. Only in separate schools, they argued, would this training be successful. On the other side were those who wished to integrate vocational education into the public school system. These groups -- including many educators, labor leaders, and social reformers -- opposed separate schools for a variety of reasons, but, most importantly, they argued that separate vocational schools would violate fundamental principles of democracy in education by channeling working class students into pre-determined occupational slots with little opportunity to pursue an education that might lead to other occupations.[70]

One of the most bitter conflicts concerning these issues arose over the Cooley Bill in Illinois. This bill -- sponsored by the Chicago Association of Commerce and drafted by Edwin G. Cooley, a former Superintendent of Chicago Schools -- proposed to establish a separate State Commission of Education to administer vocational education for youth over 14. Support came from an educational-industrial complex composed of businessmen and "social efficiency" advocates who wanted vocational schools to impart practical occupational skills and who feared that academic educators were incapable of providing this training.

Introduced before the Illinois state legislature in 1913, this legislation aroused bitter opposition before finally being defeated. Ella Flagg Young, Chicago's innovative Superintendent of Schools and a strong supporter of vocational education, voiced her opposition, claiming that the bill threatened to make the classroom into a "mere factory workroom."[71] John Dewey also fought this legislation. A dual school system, such as the one proposed by the Cooley Bill, Dewey argued, would duplicate school administration, would create arbitrary distinctions between different groups of pupils, and would narrow the scope of vocational education. More importantly, Dewey contended, a dual school system undermined the principles of democracy and threatened to turn vocational schooling into the hand-maiden of industry. "The kind of vocational education in which I am interested," he wrote in 1915, "is not one which will 'adapt' workers to the existing regime; I am not sufficiently in love with the regime for that. It seems to me that the business of all who would not be educational time servers is... to strive for a kind of vocational education which will first alter the existing industrial system, and ultimately transform it."[72] Joined by the Chicago Federation of Labor, which claimed that the Cooley Bill would create a "caste system of education which would shunt the children of the laboring classes at an early age first into vocational courses and then into factories," these groups gathered widespread support, and despite repeated attempts by its powerful backers, the Cooley Bill failed to pass.[73]

Such disagreements surfaced periodically in early debates about vocational education. Yet despite these conflicts, most reformers agreed on the principle of federal funding for vocational training. By 1910 these diverse groups -- with the additional support of agrarian reformers who were seeking support for agricultural education -- had united in an uneasy but powerful national political coalition. Coordinated by the National Society for the Promotion of Industrial Education (under the direction of its secretary Charles Prosser), they launched a concerted drive to win federal support for vocational education. In 1914, Congress appointed the Commission on National Aid to Vocational Education to investigate the issue. Dominated by members active in NSPIE -- including Charles Prosser -- the Commission concluded that there was a "great and crying need" for vocational education and advised that federal funds be appropriated to meet this need. Finally, in 1917, Congress passed the Smith-Hughes Act mandating federal aid for vocational training in trade and industrial subjects, home economics, and agricultural education for students over 14 enrolled in public schools. In addition, the Act specified three types of schools eligible for federal funds: all day trade schools, continuation schools (part-time schools) for young workers over 14, and vocational evening schools. The Act also established a Federal Board of Vocational Education to administer the allocation of funds to the states.[74]

Smith-Hughes did not, however, provide support for many vocationally oriented courses which had been introduced into American high schools in the first decade of the twentieth century. There appears to have been a bias against training for white-collar jobs. For example, practical training in commercial and business subjects had become commonplace in many urban high schools by 1910, but the Act did not provide aid for these courses. Furthermore, many vocational offerings had already become part of the high school curriculum prior to passage of the Smith-Hughes Act. One 1910 survey indicated that twenty-nine states already had some form of vocational training. Nevertheless, passage of the Act was not simply an empty gesture. Not only did it formalize the structure of vocational education, but, more importantly, as the essays in this collection point out, it helped to legitimize the idea that school was a mechanism to prepare young people for work, and, by assuming that job training required federal intervention, it constituted a major step in the evolution of the use of education as a tool of federal social policy.

Rhetoric and Reality in Vocational Schooling

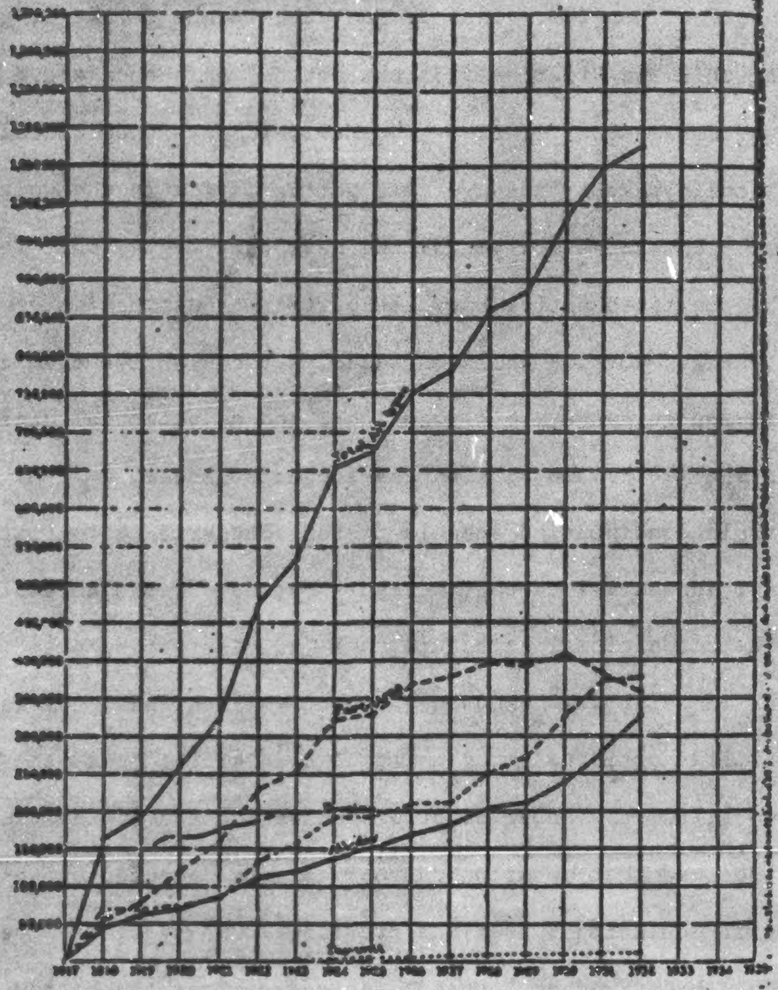
Educational reformers promised that vocational schooling would solve a number of pressing economic and social problems: it would lessen youth unemployment, facilitate economic mobility, reduce high rates of labor turnover, restore meaning to routine factory labor, and offer a practical, relevant education to thousands of youth bored by the classical curriculum. Indeed, the rhetoric surrounding the vocational education movement was little short of millennial. Yet, in hindsight, vocational education appears to have been an illusory solution for the social unrest and economic conflict which accompanied the industrial transformation of work. One striking example of this contrast between rhetoric and reality can be found in the history of part-time continuation schools for working youth.

Mandated by Smith-Hughes, continuation schools were the largest sector of federally aided vocational education -- enrolling many more students than federally assisted evening schools or all day trade schools (see chart), and declining only when the Depression of the 1930's reduced the demand for youth employment.[75] The clientele was, of course, predominantly working class -- these were the young people who were already working at the "dead-end" jobs in factories, shops, and businesses that so alarmed social investigators. Typically, these young people were compelled by law to attend part-time classes from four to eight hours a week from ages 14 to 16, and, in some cases, to 18. The curriculum in such schools varied from stress on job related skills to remedial instruction in basic skills to training in citizenship and health; most had some combination of the three, but tried to adapt teaching to the work experience of the pupils (as in teaching business English and arithmetic or the history of industry). There is abundant evidence that high school educators were relieved not to have these "ne-er-do-wells" and "hand-minded" working class children -- mostly second generation immigrants -- in their regular classes.[76] The continuation school, however, enabled educators to relieve their consciences (since they often believed education to be a kind of panacea) while permitting youth to earn wages (which they and their parents wanted). Employers in the secondary labor market could still hire youth as a force of cheap, unskilled workers, easily laid-off during periods of slack demand. Not only NAM, however, but also the AFL endorsed part-time schools, as did many liberal legislators and social workers.

The claims made for the efficacy of a few hours in continuation school instruction were grandiose. Continuation educators argued that

Figure 1

Diagram I. -Enrollment in federally aided schools, by years, 1918-1932



the schools would make students good citizens, effective parents, efficient workers, and healthful individuals who would know how to improve their leisure time. The New York Commissioner of Education termed the state's continuation school law the "children's charter."[77] According to Paul Douglas, continuation schools would make it possible for working children "to rise from the bottom" and hence would help "break down class stratification."[78] Few reformers then claimed — as do many policymakers today — that participation in the work force was genuinely educative for youth. Rather, they argued that industrial work had become miseducative but that part-time instruction could offset the disadvantages working children faced. It could give them the sort of training and guidance, both vocational and as potential citizens, that would enable them to rise on the economic ladder.

How would continuation schools foster occupational mobility? In his study of industrial education, Paul Douglas offered an explanation. Likening the occupational structure to a "multi-storied house" — the first floor of which was composed of the unskilled jobs, the second of the semi-skilled positions, the third of the skilled jobs, the fourth of clerical work, and the upper floor of managerial and engineering positions — Douglas suggested that opportunity for mobility depended on which type of industrial education system was provided. One system — the all-day trade school — offered an "outside staircase" from the bottom to the top floors. Although this system would provide mobility for some workers, its impact would be slight, since it was outside the industrial system and would therefore only benefit those able to forego earnings while being trained. The continuation school, however, provided an "inside stairway," enabling workers to earn while learning and thereby providing children of the poorest classes, who could not forego earnings to receive trade training, with an opportunity to rise on the occupational ladder.[79]

This was hardly a satisfactory plan for lessening economic inequality. By concentrating on the character of industrial education rather than the structure of work and the labor market, it attacked the symptoms rather than the sources of the conditions it hoped to eliminate. In his study, American Apprenticeship and Industrial Education, Douglas had astutely analyzed changes in the organization of work and chided vocational educators for their failure to recognize that most factory labor no longer required extensive all-around training in technical skills. Yet he nonetheless concluded, as did many others, that the worker needed "perhaps more education than he ever did before" and that the continuation school was "the best single system of industrial education" available.[80] It is a testimony to the power of American faith in education that so sophisticated and liberal an analyst as Douglas could have placed such trust in so weak an agency as the continuation school.

Like their counterparts in the continuation school movement, early advocates of vocational guidance were a diverse group, spanning a wide spectrum of ideologies and interests. In general, however, they agreed that the way people found jobs was "inefficient and wasteful," that laissez-faire economics and nineteenth century individualism were ill adapted to early twentieth century industrial society, and that schools must, therefore, aid young people in the "intelligent choice of a vocation" and "help children make their start in life with purpose, preparation, and insight."[81] Not only would this benefit the economy and the society by efficiently matching workers to jobs, but it would also help the individual, since, they argued, workers properly fitted to tasks at which they could succeed would be happier, more fulfilled people.[82]

The guidance leaders combined inspirational rhetoric with new ideas about careers and science. Appalled by the "aimless drifting" and "job-hopping" of working class youth, they wished to share their vision of rewarding career achievement with all segments of American society. Proper attention to the "life-career motive," they proclaimed, would make school more lively and interesting, instill the "right attitude toward work," and lead to a lifetime of fulfilling labor.[83] That motive, Charles William Eliot told the NEA in 1910, impels adults to "do our best work in the world" and leads people to "greater serviceableness and greater happiness — to greater serviceableness, because the power and scope of individual productiveness are thereby increased; to greater happiness, because achievement will become more frequent and more considerable, and to old and young alike happiness in work comes through achievement."[84]

Less inspirational, but just as influential were the social scientists who believed that an improved technology of occupational analysis and assessment could eliminate much of the uncertainty in "choosing a vocation." As educational psychology and sociology grew apace, and as social scientists surveyed the relationship of industry and commerce to education in many cities, hopes grew that vocational guidance could become a science that would be able to determine the abilities of students and find the appropriate niches for them in the economy. Sharing much in common with the new personnel managers in American industry, guidance pioneers like Meyer Bloomfield collaborated closely with businessmen, hoping to develop precise job specifications through task analysis and to devise ways to match human abilities with job needs. E. L. Thorndike was optimistic about the prospects of this collaboration. "Through the knowledge of the science of human nature and its work in the industries, professions, and trades," he wrote in 1913, "the average graduate of Teachers College in 1950 ought to be able to give better advice to a high school boy about the choice of an occupation than Solomon, Socrates, and Benjamin Franklin all together could give."[85]

Scholarly criticism of these techniques cast doubt on their utility, but it failed to dampen enthusiasm for the idea of using scientific guidance to aid youth not only in their choice of occupations but in all life decisions.

"Vocational guidance," wrote a superintendent in 1915, "seeks the largest realization of the possibilities of every child and youth, measured in terms of worthy service; vocational guidance seeks this not through the school alone but through the upbuilding influences that work and life beyond school ought to afford every human being."[86]

But, what did "work and life beyond school" afford? Some vocational reformers were less than sanguine about these future prospects. After completing a survey of young workers in Cincinnati in 1912, Helen Woolley, the director of the city's Vocational Guidance Bureau, stated that: "The facts we have presented seem to me to throw serious doubt upon the wisdom of allowing the public school to undertake the placing in industry of children under sixteen. There is no work open to them worth advising them to take."[87] Alice Barrows, Director of the Vocational Guidance Bureau in New York City, also doubted the wisdom of much that passed for vocational guidance. She questioned whether "anyone has the right to guide children systematically into vocations." All too often, she said, this meant providing cheap labor to employers in "a more subtle and indefinable exploitation of children than the world has ever seen -- subtle and indefinable becaues all would be done in the name of 'thu good of the society and the child.'" Sensitive to the gap between the reality and the rhetoric of the vocational guidance movement, she concluded that: "To arouse the ambition and interest of a child of fourteen by promising him 'trade training' the value of which is dubious, and then a job where he 'can work up' when we have no facts to prove that he can work up, and a distinctly uncomfortable feeling that he probably cannot, is after all even worse than stunting a child by premature labor so that you cannot arouse his ambition at all."[88]

Yet Barrows and Woolley, like their more optimistic colleagues, also endorsed educational remedies for "dead-end" jobs. Indeed, their chief strategy was to make the classroom more attractive in order to keep students in school longer — usually until 16 — thereby postponing, but hardly eliminating, the experience of enervating, "dead-end" work. "If the school," Helen Woolley suggested, "could lend all its energies to readjusting its system of instruction to meet the needs of the children who are now leaving, and thus hold them in school, it would be rendering a far greater service than it could in finding for them jobs, which, at best, are of no advantage to the child."[89] Here lay perhaps the most positive contribution of the new vocational classes. Although they probably did little to improve students' life chances when they left school, they may well have made schools more humane and interesting places for those young people who found the traditional curriculum ill-adpated to their tastes and needs.

Perspectives on the History of Vocationalism

The early advocates of vocational guidance and continuation schools were by no means unique, for the contrast between rhetoric and reality has continued to pervade the vocational education movement. Groups from many segments of American society — including some who generally viewed each other with suspicion — have looked to education as a solution for the tensions and conflicts that accompanied the spread of industrial capitalism. Why is this the case? To what extent did the efforts of reformers shape the relationship between school and work? And, how did these reforms influence the attitudes and behavior of immigrant, Black, and women workers? The essays in this collection explore these and other related questions.

According to Larry Cuban, one explanation for the rise and persistent popularity of vocational education lies in an analysis of interest group politics, particularly the lobbying power of the NSPIE and its successor, the American Vocational Association (AVA). Founded in 1906, the NSPIE played the decisive role in shepherding the Smith-Hughes bill through Congress and securing Presidential approval. But the group's influence did not stop there. When the Federal Board of Vocational Education (FBVE) was established in 1917, its members were drawn largely from the ranks of the NSPIE. Moreover, by 1926, the NSPIE had been transformed from a single purpose reform coalition into an active professional association, the American Vocational Association, dedicated to maintaining the victory achieved in 1917, a task which it has since performed with only minor setbacks.

Indeed, the power of this group has extended far beyond "what one would predict from the size of its staff and membership."[90] Using lobbying techniques honed in the decade-long struggle for passage of Smith-Hughes, for over fifty years the AVA has thwarted opposition to vocational education legislation and has consistently won higher federal appropriations for vocational programs. Even in the face of persistent criticism from blue-ribbon panels, federal studies, and academic evaluations, Cuban finds that AVA influence in Congress remained exceptionally strong. In fact, one recent study concluded that the AVA ranked fourth on a list of the eighteen most effective Washington education lobbies.

Legislative victories, however, did not guarantee that vocational programs would be implemented effectively. At best, Cuban suggests, the evidence on implementation is mixed. Although state level implementation appears to have been successful — by 1918 all states had submitted vocational plans to the FBVE and had begun to receive federal funds — the picture at the local level is much less conclusive. Although some early studies indicated that high school offerings in home economics, agriculture, and trade and industrial subjects increased dramatically after the passage of Smith-Hughes, other studies showed that the percentage of student time spent in vocational courses was quite limited. One 1931 study, for instance, revealed that in some urban school districts vocational courses accounted for as little as one per cent of the time students spent in school.

Other evidence also raises doubts about the initial impact of federal legislation. Although the data are sketchy and in some cases contradictory, enrollments in full-time vocational education courses between 1917-1930 rarely exceeded twenty per cent of high school students. In their study of the history of vocational education, Marvin Lazerson and Norton Grubb calculated that in 1924, when utilization of federal aid was at its peak, only 6.7 per cent of high school students were enrolled in industrial and trade courses, compared with 6.9 per cent in 1912-13 before federal aid was available. By 1930, Grubb and Lazerson estimate that 13 per cent of rural boys 15-18 were in some type of agricultural education, 3.5 per cent of urban boys were in trade and industrial courses, and 4.1 per cent of girls were in home economics courses.[91] The one exception to this pattern was in continuation education. Prior to Smith-Hughes, only two states, Wisconsin and Pennsylvania, had laws making some form of part-time schooling compulsory for those youth out of school at fourteen; by 1920, seventeen additional states had such laws. In 1919, 86 per cent of students in federally assisted trade and industrial courses were in enrolled part-time programs. Ultimately, in 1929, forty-seven states received federal aid for part-time vocational schools which enrolled 367,000 students.[92]*

What accounts for the apparently limited impact of federal legislation? Cuban suggests that a variety of organizational processes within local and state bureaucracies -- such as the diversity of local school districts and traditional teacher resistance to outside meddling in the classroom -- impeded federal efforts. Joseph Kett presents an alternative explanation.

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*Vocational guidance was not included in the Smith-Hughes Act, but evidence on its impact presents a similar picture to vocational education. Based on a 1930 survey, the Committee on Vocational Guidance and Child Labor of the White House Conference on Child Health and Protection estimated that the largest cities in the United States employed one full-time counselor for every 3,340 students of counseling age, middle-size cities employed approximately one counselor for every 1,503 students, and small-size cities one for every 1,595. The survey reported, for example, that Baltimore schools had one full-time counselor for every 1,100 students of counseling age, Chicago had one for every 5,000 students. Cincinnati had one for every 2,700, and New York had one for every 35,000. In medium and small-size cities the ratios were less staggering but still high. In long Beach, California, for instance, there was one counselor for every 500 students; in Madison, Wisconsin, one for every 1,100; and in San Jose, California, one for every 1,200.[93] With such ratios, it should not have been surprising that when the American Youth Council in 1938 interviewed a sample of Maryland youth ages 16-24, they discovered that only 22.7 per cent reported that they had received any vocational guidance.[94]

Like Cuban, Kett seeks to understand how a movement which generated such high hopes could have produced such meager results. Whereas Cuban searches for clues to this puzzle in how laws were passed and implemented, Kett suggests that we look at the ideas of the first generation of vocational educators, particularly those who led the drive which culminated in the passage of Smith-Hughes. By analyzing their ideas about work, unemployment, and economic mobility, Kett argues, it is possible to gain a clearer conception of why vocational education seemed so plausible to its early advocates as well as the ways in which many educators may have misunderstood the economic conditions they confronted.

Most vocational educators, according to Kett, combined recent ideas about science and professionalism with traditional ideas about work and the work ethic to forge a powerful intellectual justification for vocational education, but one which eventually blinded them to the nature of work and the labor market in the early twentieth century. They shared with Frederick Winslow Taylor the idea that skill meant the application of organized knowledge, he says, and were influenced by emerging conceptions of professionalism which linked jobs to one another in a smooth, steady career ladder from lower to higher occupational rungs. Thus many vocational reformers ignored accumulating evidence that work was requiring less and less skill as well as the fact that many "blind-alley" jobs were probably temporary youth jobs which did not preclude future occupational mobility as one matured. Rather, they hoped to reform work and eliminate "dead-end" jobs by shaping all occupations to professional models. By misperceiving the nature of the conditions they faced, vocational reformers, according to Kett, often proposed educational solutions when other responses might have been more appropriate.

Did the turn-of-the-century furor about youth and work, then, reflect changing cultural perceptions more than it reflected changes in actual labor market conditions? Perhaps partly. Although evidence on nineteenth and early twentieth century labor markets is scant, most working youth in the United States have probably always been concentrated in the least desirable occupations. In addition, as Burton Bledstein and others have indicated, in the late nineteenth and early twentieth centuries the culture of professionalism was beginning to exert a powerful influence on middle class social thought.[95] Yet, as the essays by Norton Grubb and Marvin Lazerson and by David Hogan point out, the early twentieth century concern about youth, work, and schooling involved more than faulty perceptions of work and labor market conditions.

According to Grubb and Lazerson, in the first decades of the twentieth century, the relationship between work and schooling was fundamentally transformed. Rooted in changes in labor markets, stemming largely from alterations in the organization of work, this transformation inextricably linked education to employment and altered the primary purposes of public education. For the first time, they assert, school became the primary route to employment and preparation for a place in the labor market became the "'raison d'etra' of public education." Only by examining these institutional level changes — which involve considerably more than the growth of federally assisted vocational courses — is it possible, in their view, to understand the impact of vocationalism on American education.

Indeed, the consequences of these changes were enormous for youth, schooling, and social policy. First, as schools increasingly became a major path to employment, young people withdrew from the labor market and went to school. Between 1900-1920, the percentage of 14-18 year old males at work dropped from 43 to 23 per cent and for females from 18 to 11 per cent, while the high school enrollment of 14-17 year olds rose from approximately 8 per cent in 1900 to over 44 per cent in 1930 and the proportion of high school graduates increased from 6.4 per cent of seventeen year olds in 1900, to 16.8 per cent in 1920, and to 29 per cent in 1930. Second, schools themselves were transformed in order to prepare youth for entry to the labor market. Differentiated curricula, vocational courses from trade to business subjects, guidance, and testing were introduced as schools assumed responsibility for integrating youth into the occupational structure, usually on the basis of class, race, and sex. Finally, by removing young people from the labor market and certifying them for future occupational roles, this transformation has defined — with some notable exceptions in the 1930's and more recently in the 1970's — the character of twentieth century American youth policy. It has reinforced tendencies to rely on educational solutions to labor market problems and blocked other more direct interventions such as job creation and employment programs.

Thus, where Cuban locates the roots of vocationalism in interest group politics, and Kett finds its origins in changing cultural and intellectual values, Grubb and Lazerson conclude that analysis of the rise of vocationalism must focus on the evolution of institutional relationships between school and work. It was this shift, in their view, which defined educational responses to problems of work and the labor market and which transformed schooling into a mechanism of occupational training, selection, and certification. David Hogan examines theoretical perspectives on work and schooling which shed light on how and why this shift occurred.

According to Hogan, the most common explanation of the economic functions of education — i.e., human capital theory — suggests that the development of links between school and work reflected the increasing demand for skilled labor generated by technological change. This is based on the dual assumption that technological change increases the complexity of jobs (by replacing low-skill jobs with high skill jobs and by up-grading the skill requirements of remaining jobs) and that education produces the cognitive and technical skills to perform more difficult tasks. Yet there is, Hogan points out, a considerable body of historical and contemporary evidence, some of which is outlined earlier in this introduction, which indicates that technological change has not increased the skill requirements of many jobs and that beyond minimal levels the impact of additional education on job skills is difficult to discern for a wide range of occupations.

What, then, links education to work? In particular, what accounts for the steady expansion and escalation of educational requirements for work -- that is, credentialism -- in the United States in the twentieth century? There are a number of alternative theories, most of which suggest that employers use education as a measure of general personal traits such as discipline, perseverance, and trainability rather than as a measure of specific technical or cognitive skills. Any analysis, however, must contain, according to Hogan, three elements: a description of the structure of labor markets, specification of the processes in schools which link schools to the labor market, and an account of the forces which sustain these structural linkages.

First, Hogan contends that the labor market is not unitary, as human capital theory generally assumes, but is segmented into three major divisions -- an independent primary market, a subordinate primary market, and a secondary market -- each of which corresponds with a different type of control on the job and each of which, in turn, requires different behavior and personality traits of its workers. Second, schools have been lined to these labor markets through organizational processes within schools that socialize children to these work norms and sort them to different curricula. Eventually the process distributes graduates to different labor markets. Finally, these structures have not been shaped and sustained through market mechanisms expressing a generalized popular demand for schooling, but have been shaped by political struggles between groups with different goals and interests, as in the case of vocational education.

What has been the outcome of these struggles? Some researchers have concluded that educational expansion is linked closely to economic opportunity, since, it is argued, as education has become the criterion of access to more and more occupations, the importance of class, race, and sex has declined. According to Hogan and to Grubb and Lazerson as well as several other recent critics, however, educational expansion in the twentieth century has not led to greater economic opportunity, but has, in fact, diverted attention from fundamental economic problems and has contributed to the reproduction of the class structure by differentiating among students on the basis of class, sex, and race -- channeling working class students into vocational tracks, young women into traditional female courses such as sewing and cooking, and placing middle class students in academic courses. But only recently have historians begun systematically to investigate the relationship between education and jobs for immigrants, blacks, and women; many issues remain unresolved.[96] How, for example, did the development of links between school and work influence the educational behavior and labor market participation of immigrant, black, and women workers? Did educational achievement have equal pay-offs for all groups, or did some benefit more than others from additional schooling? By what standards, moreover, should economic returns to education be evaluated? The final three essays in this collection explore these issues.

Herbert Gutman outlines selected trends in recent American working-class historiography which might inform future research in these fields. Older schools of labor history focused primarily on the rise of trade unions and the organized labor movement. This early labor history, according to Gutman, helped to legitimize the trade union as a proper subject for historical study, but it also neglected many other aspects of working class historical experience. Often it presented an abstract, homogenized view of workers instead of a more complex portrait of the varied experiences and aspirations of ethnic groups. American workers in the nineteenth and early twentieth centuries, however, did not view their changing circumstances in simple economic terms. Nor did they simply react in stereotypical fashion to the institutions they encountered. Rather, according to Gutman, their behavior reflected the development of class beliefs and cultural values deeply rooted in their collective historical experience.

Gutman illustrates this theme with a case study of the educational behavior of ex-slaves in the years immediately following the Civil War. Most historical study of this topic has focused on the rhetoric and beliefs of Yankee reformers anxious to use schools to socialize liberated ex-slaves to conform to Protestant, bourgeois values. Yet much evidence indicates that ex-slaves pursued education for themselves and for their children independent of endeavors of Yankee school teachers, northern missionary societies, and the Freedman's Bureau. Gutman finds that newly emancipated blacks acted on a variety of class beliefs, rooted in slave class experiences, to establish schools for the children of freed black men and women. In both voluntary and collective efforts, ex-slaves built schoolhouses, raised funds, and contributed time and resources to educate their children. By examining the contexts in which such self-activity and collective endeavor developed over time, Gutman concludes, historians can begin to understand the nature of working class historical experience.

Perhaps nowhere, however, has there been a greater gap between rhetoric and reality than in the history of black vocational education. Few groups have placed greater faith in the equalizing power of schooling yet historically received such meager economic returns for their additional schooling. James Anderson describes how black educational leaders responded to this situation.

According to Anderson, three strategies have characterized black vocationalism since the late nineteenth century. One strategy was to adapt black vocational schooling to those occupations in which large numbers of blacks were employed and to encourage black youth to make 'realistic' decisions about future careers. This tactic characterized the educational ideas and practices of the post-Civil War normal schools such as Hampton and the "black land grant institutions" chartered by the second Morrill Act in 1890, both of which emphasized black teacher training through a manual labor process.

The second strategy, which flourished in the black vocational guidance movement during the 1930's, questioned the philosophy of advising black youth to pursue racially defined occupations. Instead, black vocational leaders -- much like their white colleagues in the movement -- proposed to increase black occupational opportunities through well developed school guidance programs. Not only, they argued, would this widen occupational choices for black youth, many of whom had a limited knowledge of the job market, but it would also help to reduce unemployment among black youth by diversifying their occupational options and teaching them about the problems of living in a modern industrial economy.

Vocational guidance, however, did little to expand occupational opportunities for black youth, and, after World War II, black leaders stressed a third strategy: obtaining equality of opportunity in academic secondary schools and colleges. Since 1950, Anderson points out, this strategy has produced dramatic educational gains for black Americans, until in 1976 the median number of years completed by black equaled the median number of years completed by whites. Yet, as in the past, educational achievements -- with some notable exceptions for black professionals -- rarely produced commensurate gains in job opportunities and in income. From 1952 to 1968, while the mean education of black male workers rose from 67 to 87 per cent of that of white male workers, the median wage and salary incomes of black workers rose only from 58 per cent to 66 per cent of white incomes, most of this increase, moreover largely a result of black emigration from the south.[97]

But, despite this disparity, Anderson concludes that increases in educational attainment may bear economic fruit for black Americans, although not in ways commonly expected. Rather, he suggests, by sharpening the contradictions between blacks' educational attainment and occupational achievement, educational success may illuminate the shortcomings of educational panaceas for labor market conditions and thereby direct attention toward remedies which directly combat labor market discrimination.

For women, as for black Americans, the economic pay-off of additional schooling have been less than for white males. Yet, women, too, have consistently sought more schooling. In fact, in the late nineteenth and early twentieth centuries, female high school graduates consistently outnumbered male graduates by approximately three to two. According to Geraldine Clifford, part of the answer to this historical puzzle may be found in the ways that gender has shaped women's participation in the workforce and in the ways that schooling has influenced the occupations women could enter.

Historians have only recently begun to investigate the ways in which class, race, ethnicity, region, and family have influenced women's labor force participation, but, as Clifford points out, at least three patterns stand out.[98] First, women's share of the labor force has increased steadily since the late nineteenth century, rising from 18.3 per cent in 1900, to 20.4 per cent in 1920, to 27.9 per cent in 1950, and to 46 per cent in 1978. Second, gender has always specified occupations appropriate to women. Although the percentage of women in non-manual work increased from 28 per cent of working women in 1900 to 45 per cent in 1940, almost all women worked in sex-segregated occupations which were popularly viewed as "women's work." In 1940, for example, more than 75 per cent of all women workers were in jobs that employed less than one per cent of all male workers.[99] Third, the average woman worker rarely received more than 50 to 55 per cent of what men received for their work. Even where men and women held the same job, the pay gap remained substantial.[100]

Vocational reformers were uneasy about these trends, concerned that job entry was undermining women's traditional roles as wives and mothers. They also recognized that many women only remained in the workforce for a short time, thus making vocational education seem wasteful. Accordingly, where vocational training was given, it usually focused on traditional female occupations such as dressmaking, sewing, and, after 1900, secretarial skills, and centered as much as possible on home economics and domestic science -- courses which might be beneficial in women's occupations, but which, more importantly, would also prepare women for their expected "careers" as wives, mothers, and housekeepers.

It is difficult, however, to assess the impact of female vocational education on women's labor force participation. Although vocational reformers differentiated vocational training by sex, Clifford questions the degree to which "the sometimes obligatory course in home economics" actually influenced women's work. More important, she concludes, since the late nineteenth century a woman's position among workers was coming to be broadly defined more by the amount than the type of education she possessed. Increasingly, the girl who left school after eighth grade was limited to factory labor, whereas the growing number of female high school graduates could find jobs in the expanding white collar sector of the economy. Thus, although the gap between women's educational achievement and the reality of a sex-segmented labor market remained, staying in school may have opened occupational options for a woman that were unavailable to her less educated sisters.

Conclusion

Many of the early debates about the connection between school and work have obvious echoes in our own time. Indeed, during the last decade, the relationship between school and work has become one of the foremost topics of educational discussion. Concern about the "decline of the work ethic," the phenomenon of 'over-education,' and spiralling rates of youth unemployment — especially among minority youth — has once again created a public pre-occupation with the vocational purposes of schooling and has stimulated a flurry of proposals to make school more relevant to adult life and the world of work. Some observers propose a dramatic re-orientation of the educational system so that all phases of school experience will be job-oriented. Others have advanced plans to alternate periods of school with periods of work so that young people will have work experience while they remain in school. Still others — James Coleman is perhaps the best known — wish to transfer responsibility for socializing young people for work from school to the workplace itself. Work, it is argued, is a preparation for life, while school only reinforces an irresponsible youth culture.[101]

Several of these proposals contrast sharply with earlier reforms. Many turn-of-the-century vocational reformers would probably be shocked by Coleman's schemes to shorten schooling and return youth to work at an early age. Worried that work had become miseducative for youth -- and perhaps more knowledgeable about the workplace than many policymakers today -- they turned to schools, hoping that job-oriented training and guidance might combat the ill effects of industrial labor.

Historical analysis does not provide tidy lists of lessons from the past or specific policy recommendations for the present. To be successful, remedies must be specific to time and place, sensitive to context. In these essays we have sought to provide perspectives on changing contexts of attitudes and institutions. Examination of some current proposals for vocationalism in education does give, however, some feeling of *déjà vu*, a sense that some policymakers may be recycling old solutions to problems that have proven resistant to purely educational correction. A common general message of these essays, despite variation in evidence and ideology, is that education has been significantly related to work but that it alone cannot remedy deep structural problems in the economy or society. But giving up extravagant hopes aroused by previous rhetoric does not mean that schooling cannot play an important part in correcting the realities of social injustice.

Footnotes

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ENDURING RESILIENCY: ENACTING AND IMPLEMENTING FEDERAL VOCATIONAL EDUCATION LEGISLATION

Larry Cuban

Consider the following items carefully:

- In the last half-century of federal legislation on vocational education, during boom and bust, war and peace, bills were regularly approved in both Houses of Congress overwhelmingly. Most Senators and Congressmen embraced the legislation with unqualified enthusiasm.
- At the depth of the Depression when federal aid in many areas was cut back, Congress appropriated $10,000,000 more than the President had requested for vocational education. President Roosevelt condemned the "active lobby of vocational teachers, supervisors and administrative officers in the field of vocational education who are interested in the emoluments paid in part from Federal funds."[1]
- In Atlanta, Georgia in what must be a first, a high school was named after a law: The Smith-Hughes Vocational High School.[2]
- One vocational education appropriation was approved in perpetuity. Yes, forever.[3]

Yet after sixty years of school programs and after billions of federal, state and local dollars, no legislator, educator or lobbyist can prove that vocational programs do precisely what federal legislation promised. On the contrary, in the last forty years blue-ribbon committees and government financed studies have pointed out repeatedly serious shortcomings in vocational education allocations, operations, productivity and impact within schools. A few studies even stressed the dangers of overzealous lobbying. Yet annual appropriations increased to over $600 million in 1978.[4]

The triumph of vocational education as a federal priority is nicely captured in six decades of legislation that annually ships increasing amounts of federal dollars to fifty states for distribution. The evident popularity of vocational schooling with lawmakers rivals congressional affection for dams, river projects and defense installations.

But the popularity is not universal. Both friendly and hostile critics, government investigations and informed citizens have pointed out serious flaws in vocational education's conception, organization, operation and results. "Vocational education," a former American Vocational Association Executive Director said, "has always been unpopular except with the people." All vocational legislation beginning with the Smith-Hughes Act of 1917, he continued, "has been imposed on national administrators almost entirely as a result of the articulated demands of business, industry and agriculture and the legislative leadership of the Congress." This congressional enthusiasm in the face of ample evidence of defects in the vocational education enterprise is one of a number of puzzles and contradictions buried within the history of federally-funded vocational education in the twentieth century.[5]

There are other puzzles as well. Consider that advocates of vocational education triumphed in the first two decades of this century, according to a number of historians. Yet after this victory, no more than one-quarter of high school youth were actually enrolled in vocational curricula or separate schools after a half-century of federal support.[6]

Also notice how a small Washington-based professional organization has had its fingerprints all over each piece of vocational education legislation in this century. How could such a small organization wield such clout with Congress?

Finally, consider that even though one-quarter of high school students have been enrolled in vocational curricula in the 1970s virtually no information is generally available describing what actually goes on in these schools and classrooms that could confirm whether or not learning by doing—the very basis of vocational education as promoted by its partisans—occurs and actually holds students longer in school.

These are only a few of the puzzles and contradictions that emerge from an analysis of the literature on the politics and implementation of federal legislation. This paper probes at these puzzles, exploring them both tentatively and speculatively since, as the text makes clear, much research remains to be done.

The viewpoint within the paper differs from others in this book. While Joseph Kett concentrates on the ideology of vocational educators and the potency of their ideas, and while Marvin Lazerson, Norton Grubb and David Hogan view the triumph of vocationalism in the context of an intersection in economic forces with social class structure and the political process, I have chosen to tell how particular laws were passed and tried to capture the detailed and complicated texture of a political process at work. Of one thing I am certain.

No comprehensive explanation of the apparent success for the federal government undertaking responsibility for subsidizing vocational education in public schools can ignore how these laws were passed and how the congressional mandates were executed.

The paper is divided into the following sections. First, there is a review of the major legislation and what has been written about each law's origins, enactment, implementation and results. From this review, two questions emerge about the paradox of vocational schooling's popularity with Congress amidst persistent criticism and about the puzzle of an apparently faulty implementation process. The answers to each of these questions complete the paper.

FEDERAL LEGISLATION ON VOCATIONAL EDUCATION

Since 1900, over fifty federal laws have been passed that deal with vocational education in public schools. Of these laws two influenced significantly what directions vocational schooling have taken: the Smith-Hughes Act (1917) and the Vocational Education Act (1963) including the 1968 Amendments to the law. Few researchers[*] have investigated the origins, enactment, implementation and effects of these laws upon public schools.[7]

Smith-Hughes Act. This piece of vocational education legislation has attracted the most attention from the few writers who have addressed this topic. They agree generally on the statute's origins, enactment and initial implementation by the federal agency charged to execute the law. They disagree over the law's impact, however.

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[*] For a brief description of the writers on this subject, see note 42.

For the most part, writers located the roots of the legislation in progressive reformers' efforts to deal with the worst excesses of industrialism by vocationalizing public schools. Efforts in such states as Massachusetts to introduce and spread vocational schooling helped create a national reform lobby called the National Society for the Promotion of Industrial Education (NSPIE), an uneasy but effective coalition of businessmen, unionists, educators and professional reformers. Each interest group viewed vocational education as a panacea for the economic, social and school problems of the day. The NSPIE promoted vocationalism as a solution whose time had come.

Writers are unanimous in crediting the NSPIE and the interlocking network of educators, businessmen, legislators and public officials, ad hoc committees, and blue-chip business coalitions for brokering a bill through, initially, the National Commission on Vocational Education, appointed by President Woodrow Wilson in 1914, and second, through Congress by 1917.[8] The details of the effective, decade-long lobbying effort by NSPIE to get a federal subsidy for vocational education are captured in a number of studies. While these studies differ over a few points, they agree generally upon NSPIE's decisive role in moving the bill through both Houses of Congress and securing the President's signature.[9]

Signed on the eve of the nation's entry into World War I the law provided for the"promotion of vocational education," defining it as agricultural, trade and industrial and home economics subjects. The major aim of such schooling "shall be to fit for useful employment public school students 14 years of age or older." The subjects to be taught, the number of hours spent in instruction, the amount of time for supervised work in the field were all prescribed in the law. Funds could be used for paying salaries of vocational teachers in the targeted occupations named in the law. Finally, each state had to prepare a plan for review by the Federal Board of Vocational Education (FBVE), a body expressly established by the Act. The Federal Board could "withhold the allotment of moneys" if the plan or subsequent regulations went unheeded by the state.[10]

Between 1917 and 1933, the Federal Board, the first and only national school board, allocated funds to the states, approved staff-written regulations and gave general oversight to the law's implementation. An Executive Director and Regional Agents carried out the FBVE's policy directives, reviewed State plans, wrote bulletins, held conferences and distributed money to the states.

While the law's language called for a Federal-State partnership, the FBVE exerted much influence over how states used Smith-Hughes funds. The only other federal grant-in-aid program that had greater influence, according to a 1938 study of vocational education, was the National Guard. In 1933, as part of an economy measure, Congress stripped the FBVE of its authority and funds, transferring it to the Office of Education where it became an Advisory Committee until 1946 when it was abolished.[11]

The implementation of the 1917 law has received little attention from the few historians who have written about the

Act. Between 1917 and 1963 when the second Vocational Education Act was passed, a half century of federal, state and local operations have gone largely unnoticed by historians. Yet the law was effectively implemented by the FBVE; those decades of implementation did affect school organization, curricula, instruction and administration by the states. How much and to what degree is difficult to assess.

Two early major sources of data (and judgments) on the implementation and impact of the law are Charles Prosser's writings and a 1938 study commissioned by a Presidentially-appointed committee.[12]

Ex-superintendent, top staff man for the NSPIE and chief architect of the 1917 law, Charles Prosser--"the master craftsman of vocational education"--was appointed first executive director at the Federal Board of Vocational Education. In less than a year, he had prodded every state into accepting the law and producing a vocational education plan as called for in the statute. In his brief tenure there, his passion for separate vocational schools and specific-task training of students for existing jobs produced policy directives, articles and advice to thousands of like-minded advocates across the country. His descriptions of the FBVE's work remains the only detailed narrative of the initial federal implementation effort in those years. Historians and textbook writers have drawn liberally from Prosser's data and conclusions.[13]

Prosser's conclusions on the first federal subsidy of secondary school curricula are straightforward. Through legislatively mandated state plans, uniformity in vocational education finally developed; numbers of separate schools and total high school enrollments in vocational courses climbed; qualified state supervisors and teachers were hired; federal subsidies triggered larger state and local contributions to vocational schooling. Charts, graphs and warm testimonials to vocational education stud his writings, supporting his view that the 1917 Act had made a lasting imprint upon public schools across the nation.[14]

The second major source of data and conclusions on the execution and impact of the law is the Russell report. Appointed by President Franklin D. Roosevelt after a Congressional debate over the extension of the 1917 law in the midst of the Depression, the Advisory Committee on Education published its study of vocational education in 1938. University of Chicago Professor and former Assistant Commissioner for Higher Education at the Office of Education, John Dale Russell authored a report sharply critical of vocational education with particular emphasis upon the negative impact of the Smith-Hughes Act's two decade long influence upon public schools.

After Russell analyzed two decades of the law's influence, he concluded that rigid fund allocation to specific instructional categories had converted a national program originally begun to stimulate vocational education into a "federally dictated program in many States." Consequently, local experimentation was stifled. Also, because Smith-Hughes dollars went to schools that scheduled vocational classes two to three consecutive hours unlike the conventional high school classes of one hour or less, and since money went toward separate youth clubs such as Future Farmers of America, he concluded that the gap between general and vocational schooling, a condition he deplored, widened.[15] Furthermore, the primary purpose of the law to stimulate state and local support for vocational education had shifted, he felt, to straight subsidy of existing programs. The net result was "a program that has not greatly changed since it was first introduced."[16]

In making these points, Russell attacked both the lack of reliable statistics and the absence of information on programs. Enrollment figures, for example, the very centerpiece of every true believer's faith in vocational education, Russell said, were unreliable. A person who went only twice to an evening class was counted as one enrollment in the published reports, the same as the student who spent the entire year in an occupational class in a fulltime secondary school. Thus, citing increased enrollments as a sign of significant impact was, he concluded, misleading.[17]

While both Prosser and Russell agreed that the law influenced the development of vocational education, their conclusions differed over whether such influences helped or hindered public schools. This consensus over the law's stamping of vocational schooling into certain patterns after 1917, yet division over the significance of that imprint, has marked subsequent works of the few writers who have examined the first Vocational Education Act in the decades since the 1938 Russell Report.[18]

Begin with the writings of Melvin Barlow, Professor Emeritus of Education and official historian of the American Vocational Association (AVA). His view of the Smith-Hughes Act's impact parallels the conclusions of Charles Prosser, a man that Barlow said "above all others ... understood what vocational education was all about." In assessing the influence of the 1917 law a quarter-century after its passage, Barlow, like Prosser, cited the rapid enrollment growth in the four traditional occupations and the leadership role of the Federal Board. "It is clear," Barlow and AVA Executive Secretary M.D. Mobley wrote in 1965, "that the vocational education program of the nation has advanced more rapidly with federal funds than would have the case without them." More important, they argued, are the specific impacts: the creation of State Boards of Vocational Education, development of standards and improved supervision.[19]

No recent writers outside the AVA orbit have assessed the law's impact as optimistically as Barlow. His viewpoint remains a minority even among the handful who have addressed the topic. Most writers stress the law's narrowness, specificity and inflexibility. All of these liabilities were identified in the 1938 Russell report.[20]

Consider the work of former agriculture teacher, superintendent and professor of education, Grant Venn. Prior to his 1966-1970 tenure as head of the U.S. Office of Education vocational division, Venn authored a study of vocational education, a portion of which focused upon the effects of the 1917 legislation.

Stressing the pre-World War I context that produced the Smith-Hughes Act, Venn argued that pre-1917 assumptions about vocational programs, high schools, instruction and available jobs were deeply embedded into the law. These assumptions remained largely untouched until 1963, he concluded. By legislating a pre-1917 vision of effective vocational education and surrounding that vision with a legal barbed wire fence of details and prescriptions, Venn concluded that Congress detoured vocational schooling into grooves that became ruts. He pointed to inflexible uniformity, lack of experimentation, nurturing of dual programs and administration, instruction tailored too closely to the existing high school organization, and emphasis upon farming and crafts that fit an early twentieth century economy and the narrowness of equating job training with a lifetime vocation.[21] Similar to Russell's analysis a quarter century before, Venn saw negative consequences to a law that froze the structure and practice of vocational education into a mold that proved almost impossible to break until the passage of the second Vocational Education Act in 1963.

Variations upon this interpretation can be found in the works of historians Arthur Wirth, Marvin Lazerson and Norton Grubb. Wirth agreed with Venn. "Such specificity," Wirth said, "handicapped vocational education from attaining the flexibility required to meet the demands of fast moving technical and social change." While agreeing generally with the view that the law was narrowly drawn, overly detailed and a barrier to innovation, Lazerson and Grubb saw the Federal Board as a weak advisory and administrative agent of the law, severely hampered in its discretion by the details of the statute.[22]

This conflicts with the interpretations of Prosser, Barlow, Russell and Venn, who offered abundant data to support the view that the FBVE was aggressive, exceeded its legal mandate in some instances, and saw its mission as propagating the doctrine of a one best vocational education system. In short, these writers saw the FBVE as an effort by the reformers to force compliance with the law in order to spread their version of the vocational gospel.[23]

Whatever the differences in interpretation, the operations of the only national school board that touched thousands of localities and tens of thousands of schools remains a largely unexamined chapter in federal education policy that deserves full investigation.

Another point that Grubb and Lazerson contest is increased enrollment. Wisely, they look at the percentage of high school students enrolled in industrial and trade courses rather than total numbers which Russell and others have pointed out are misleading. Comparing high school enrollments in 1912-1913 before federal aid and in 1924, five years after federal subsidies flowed to the states, they find that about the same percentage (7%) of high school students were enrolled. Furthermore, they point out that enrollments shot up in part-time schooling and this became one clear result of the 1917 Act.[24]

On the impact issue, the two historians concur with the dominant interpretation. "The structure of vocational education," they state flatly, "has remained largely unchanged since the passage of the 1917 Smith-Hughes Act." They extend the lack of change, however, beyond 1963 through subsequent amendments to career education. Their stress upon "persistent failures" and continuities in vocational education differs from other writers.[25]

The scanty literature on the effects of the Smith-Hughes Act divides easily between those few writers who see the law and its impact as part of the inevitable progress of vocational education-- e.g. Prosser and Barlow-- and those who see the law largely as a misguided success in forcing a narrow, prescribed, pre-World War I vocational education system upon the nation's schools-- e.g. Venn, Russell, Wirth, Grubb and Lazerson.

Vocational Education Act (1963). Called the second Magna Charta (Smith-Hughes was the first) and a "new day" for vocational education, the apparent tradition-breaking legislation of 1963 has attracted even fewer scholars to explore its origins, enactment, implementation and effects.[26]

The origins of the Act, writers agree generally, are located in the perceived shifting manpower needs of the late 1950s and early 1960s when high unemployment among untrained workers and technological development triggered demands for more skilled workers in occupations unknown to the curriculum in American high schools. Continuing criticism of the schools mixed with a growing awareness of minority and youth problems led President John F. Kennedy to propose a Panel of Consultants on Vocational Education to review and evaluate existing programs and recommend improvements.[27]

Just as critical of vocational education as the Russell Report (although its language was restrained), the Panel established clearly the need for expanded vocational education. Eight of ten youths will not complete college, the report found. Moreover, only 18% of the high school students surveyed by the Panel staff took a predominately vocational curriculum.

Existing programs, the report concluded, were insufficient to meet shifting national manpower needs or to integrate large numbers of unemployed, disadvantaged youth into the economy. Furthermore, the Panel report continued, the vocational education that was available varied dramatically by region and socio-economic status.[28]

Critical of the uniformity in vocational curricula, insufficient planning, substantial data gaps and fragmentary evidence of accomplishment, the Panel called for expansion of occupational programs for high school youth, far more federal support for post-high school adults and more training for the unemployed, particularly the disadvantaged. By increasing federal subsidies and abolishing the rigid formulas inherited from Smith-Hughes legislation all of these recommendations could be financed.[29]

The Panel report was presented to President Kennedy in November, 1962. Thirteen months later, the Vocational Education Act was signed by President Lyndon B. Johnson.

Only a few accounts detail how the report's recommendations passed through both Houses. A Princeton University senior's thesis on the journey of the vocational education bill through Congress in 1962-1963 was purchased and published by the AVA. Also Melvin Barlow's writings trace the course of the legislation through Congress. Both accounts note the substantial influence of the AVA at each stage of the legislative process.[30]

While the law itself did not embrace the Panel's recommendations entirely, it nonetheless departed dramatically in intent from the Smith-Hughes law and its subsequent extensions.

Enlarged total appropriations, increased non-categorical grants that allowed states funds for more program development, added discretion for states in transferring funds between categories, clear focus upon high school and post-secondary training including the handicapped and disadvantaged, and upgrading the skills of the under- and unemployed were included in the statute. In addition, funds for innovative programs, research, curriculum development, research and residential vocational schools were in the omnibus bill. The law, however, did continue funding of the Smith-Hughes occupational categories, direct evidence of the lobbying strength of the AVA.[31]

In effect, the Act broadened the definition of vocational education to prepare people for many jobs rather than meeting specific market demands, mandated more program flexibility, and encouraged experimentation.

Within a few years questions surfaced about the implementation and effects of a law that expected stunning changes in how states and local school systems were to operate their vocational and high schools. Garth Mangum, economist and manpower policy analyst, authored a number of articles and studies of vocational education and its intersection with national manpower demands. In 1968 he concluded that while reported expenditures in vocational education had climbed three times over what it had been and construction of area vocational schools jumped, "the extent to which high school students are being prepared for employment after two years of VEA is unimpressive." He located limited movement in the permissiveness of the legislation. "New objectives were prescribed and added resources were provided," he wrote, "but the Act made no necessary connection between the two." Furthermore, "the lack of national leadership from the Office of Education" made any movement at the state level most difficult.[32]

Sociologist David Rogers, leaning heavily on Mangum's data, embraced the manpower analyst's conclusions in a report to a national committee studying high schools. Despite the promising changes stimulated by the law, he felt that many states are "reluctant to follow federally established priorities." He questioned whether many "reforms spelled out in such detail ... have been implemented."[33]

The 1968 Amendments. The major study of the implementation and impact of the 1963 law was completed in December, 1967 by the National Advisory Council in Vocational Education, a group created by the VEA to report specifically on the subject.[34] Greatly influenced by Grant Venn, then serving as the U.S. Commissioner of Education's appointee to direct the vocational education division, this study laid the basis for the substantial amendments that Congress added to the VEA in 1968.[35] Summarizing achievements of the 1963 statute, the Advisory Council also listed a number of "limitations," a euphemism used in many reports for weaknesses. The Council recommended strong support for the new directions charted by the VEA. Specifically, they recommended sharper targeting of handicapped and disadvantaged youth, additional funds for post-secondary and adult programs, more flexible allocations, improved planning, research and evaluation by states and a reliable reporting system. The emphasis, again, was on improving and providing job skills for youth and adults, not preparing them for particular occupations.[36]

Many of these recommendations were endorsed by Congress and included in the 1968 Amendments. Barlow describes, from the AVA's perspective, the enactment of these changes to the 1963 law. Harry Summerfield's description of the progress from Advisory Council report to the President's desk acknowledges AVA's decisive role. He also stresses Grant Venn's influence in shepherding key ideas through the Advisory Council, discreetly briefing Congressmen and their assistants on key parts of the bill and releasing information to supportive legislators in a timely fashion. Whatever the process, the relationship between the Advisory Council recommendations and the various portions of the statute are "too obvious to be accidental."[37]

Congressional additions to the 1963 law gave, in Grant Venn's words, "America's public schools a mandate which is probably the most challenging in their history." Bridging national needs with those of youth, the 1968 Amendments, he continued, will make "occupational preparation a major responsibility of our schools." Existing occupational programs will be expanded and new ones will be designed "to equip slum youth, disadvantaged adults and handicapped persons with job skills and to meet the nation's manpower needs."[38]

The impact of these federal funds upon states and localities was assessed in a 1974 report by the General Accounting Office (GAO). The GAO report, based upon a seven state study, found that:

- in some states the ratio of federal to state and local dollars declined rather than increased as intended; in other words, the expected catalytic effect of federal dollars upon state funds did not materialize.

- large amounts of federal funds were retained at the state level for administration.
- while vocational opportunities were made available for handicapped and disadvantaged individuals, these groups were not given the high priority Congress intended at state and local sites.
- increased federal funding did not produce proportionately higher enrollments.
- state allocation of funds was made indiscriminately rather than selectively for needs intended in the law.

The GAO report included the Department of Health, Education and Welfare's (HEW) response to the identified weaknesses. Except for the one item on the catalytic effect of federal dollars, HEW concurred with the points made by the investigators.[39]

In order to monitor the impact of the 1968 Amendments, the U.S. Office of Education contracted with Northern Arizona University for Project Baseline, a series of vocational education studies. Project Baseline subcontracted with Mary Ellis for a Report to the Nation on Vocational Education: 1975. In it, Ellis appraised the impact of the Amendments for the period 1971-1974. Ellis identified fifteen Congressional expectations deriving from the Amendments (e.g. enrollment growth, increased state and local funding, targeting of handicapped and disadvantaged,etc.). Repeatedly, Ellis pointed out the paucity or unreliability of data in assessing the fulfillment of the expectations. Where data was available and reliable, they were included.* "While there is enough quantitative evidence," she concluded, "to suggest that vocational education programs have indeed been serving greater numbers of persons during the four year period examined..., there is a dearth of qualitative evidence showing the extent to which programs have achieved 'high quality' as specified in the Vocational Education Amendments of 1968."[40]

Mildly dissenting from the GAO report, Ellis' primary evidence of positive impact rested upon that old standby: increased enrollment. After six decades of assessing the impact of vocational education legislation, after the early reliance by Prosser and other partisans upon enrollment figures as the single, clearest test of effectiveness, Ellis returned to the only data she could rely upon in 1975.

The issues of unreliable data and ambiguity over the legislative impact of vocational education subsidies continue. The 1968 Amendments were renewed with modest changes in 1972 and 1976. Congressional intent was narrowed and concentrated to focus further upon handicapped, disadvantaged and postsecondary students; more planning, evaluation and reporting requirements were included. Also Congress mandated that the National Institute of Education (NIE) study vocational education and produce a policy analysis by 1981.

In view of unresolved issues, criticism, and unanswered questions that have surfaced since 1917 on vocational education and unabated Congressional enthusiasm for increased appropriations, a legislative mandate to find some answers to persistent questions is a mild and welcome departure for the Congress in dealing with vocational education.

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*The unreliability and unavailability of data have been a steady refrain in the Russell report (1938), Panel report (1963), Advisory Council (1968) and GAO Report (1974).

Congress appropriated four million dollars to discover:

- how vocational education funds are distributed to state and local school systems.
- how, and to what degree, states and localities comply with planning, evaluation and reporting requirements established in the 1976 Amendments.
- how federal legislation is implemented in school districts.
- how effective vocational programs are.[41]

Summary

This brief survey of the literature on the origins, enactment, implementation and effects of two major pieces of federal legislation on vocational education suggests a few conclusions.

1. Writers generally agree on the origins of these laws but differ greatly over their effects.[42]
2. There are apparent continuities in how vocational education laws (1917 and the 1960s) responded to the strong social, economic and educational criticism of the times. The promise of vocational education to cure unemployment, integrate minorities and immigrants, cut the number of drop-outs and motivate students to stay in school was sounded at the turn of the century and in the 1960s.
3. Federal legislation before and since 1917 was influenced by well-organized lobbying groups.

4. Congressional intent of the legislation was to move from specific occupational preparation serving the existing labor market toward flexible programs serving both manpower needs and people, particularly those who have been unserved.
5. Independent, federally sponsored reports over four decades have criticized federal implementation, state and local practices and the strong resistance of state and local programs to what Congress expected. These critical reports have not diminished Congressional enthusiasm for vocational education; if anything, new legislation has been drafted to renew, expand, and define further the federal interest in vocational education.

From these conclusions at least two questions emerge:

- In the face of persistent, substantial criticism and uncertain success, why has legislation on vocational education been so resilient?
- What happened to implementation of federal legislation that led writers to conclude that state and local jurisdictions resisted Congressional efforts to improve vocational education?

In the face of persistent, substantial criticism and uncertain success, why has legislation on vocational education been so resilient?

Any answer to the question, tentative and speculative as it would be,must include at some point the influence of the AVA and its predecessor organizations. A few words on their background and tactics are essential.

First, some genealogy. Founded in 1906, the National Society for the Promotion of Industrial Education succeeded in its primary goal of securing a federal subsidy for vocational schooling. In 1917, the coalition changed its name to the National Society for Vocational Education and in 1926 merged with the Vocational Education Association of the Middle West to create the American Vocational Association. The current 55,000 member association traces its roots directly to the NSPIE. Founded as a lobby and converted into a professional association, the organization carries the legacy of aggressive lobbying to promote vocationalism through federal legislation as surely as a child carries its parents' genes.[43]

While no history of the NSPIE or AVA has yet been written, the effective reform-minded coalition born in the progressive years with President Theodore Roosevelt as one charter member and President Woodrow Wilson a warm ally, has received some attention from historians. A small national organization (less than 1000 members in 1912), it succeeded in midwifing the Smith-Hughes bill into legislation. Recognition of the reform lobby's decisive role was evident, Charles Prosser reported, when President Woodrow Wilson used four pens made by boys in a Buffalo vocational school to sign the bill; three pens went to Congressmen who had sponsored various vocational education bills. The fourth pen went to the NSPIE.[44]

After the NSPIE victory, reformers did not leave to chance what would happen to vocational schooling. When the Federal Board for Vocational Education was established, over half of the Board's membership was drawn from NSPIE leadership. The first Executive Director was Charles Prosser. In effect, the reformers became the implementors. Prosser's successors with the Board maintained close ties with the professional organization. After Congress shifted the Board to the Interior Department's Office of Education, again intimate ties between administrators of the program and the AVA continued down to the present day.[45]

The conversion of a single-purpose reform coalition into a professional association dedicated both to maintaining and expanding legislative victories captures the essence of the NSPIE -AVA history. From the few accounts that exist, apparently AVA has been effective far beyond what one would predict from the size of its staff or membership. The word "apparently" is used because what will be cited here are references to AVA's methods and results that are drawn from both promoters and critics. A fuller description and analysis might change the general outline sketched here. That study has yet to be done.

"I firmly believe," AVA Executive Secretary Lowell Burkett said in 1977, "that AVA has only one reason for existence and that is to promote and improve vocational education." Scattered pieces of evidence suggest that the organization has performed its task well since 1917. Aggressive lobbying tactics and very close ties with Congress, a pattern set by NSPIE, continued into subsequent decades. Since 1934 AVA has had only four executive secretaries, a continuity that may help to explain its effectiveness.[46]

The general strategy used by AVA lobbyists was to work closely with key Congressmen from southern and rural states to draft bills. Whenever opposition to bills surfaced, techniques refined in the decade-long struggle of NSPIE for the Smith-Hughes Act were used. AVA would inform its regional, state and local membership of what the issues were, which Congressmen were in favor or opposed to the bill and then urge individuals to contact their representatives to make the case for vocational education. Lists of Congressmen and Senators were drawn up; sample telegrams were drafted; key state and local educators were asked to appear at hearings. In uncertain districts, local vocational educators called businessmen, public officials, war veterans and others to ask them to intercede with the representative on behalf of vocational schools. Bolstering these tactics were a steady stream of newsletters, bulletins, monthly copies of American Vocational Journal and an annual convention--all opportunities for the organization to give legislators space and time to make political points with constituents.[47]

Except for their unsuccessful opposition to the transfer of the FBVE to the Office of Education in 1933, AVA influence with Congress ran exceptionally strong. Grant Venn felt that "credit for the legislative successes goes in large measure to the American Vocational Association." In the midst of one debate during the mid-1930s, one Senator, angry over AVA tactics, told his colleagues that:

> A few moments ago I was advised that 73 telegrams had been received in my office during the last three hours. They read alike and that they are inspired is evident. Somebody has been spending from 60 to 75 cents per telegram to wire me to vote for the proposed increase in the (vocational education)

> appropriation.... I do not blame this man for wiring throughout my State, not only to educators, but to the American Legion Posts, and labor and farm organizations; but it is the most thorough job that has been done since the days when we received telegrams to oppose the utility holding company bill.[45]

In part because of such lobbying during the Depression, Congress increased vocational education funds by $10,000,000 more than President Roosevelt requested.[49]

The organization's deep involvement in all phases of the legislative process led one writer to flatly state that M.D. Mobley, Executive Secretary, was "consulted on the writing of all federal legislation" when he served the Association. Barlow and Kliever traced AVA's activities in the year-long enactment process that led to the 1963 legislation. That the Smith-Hughes occupational categories remained untouched (President Kennedy and the Panel report both recommended termination of the categories) is another instance of an AVA position written into the legislation. Barlow's description of Lowell Burkett's efforts in 1967-1968 also suggest intimate ties between AVA and Representative Roman Pucinski in guiding the 1968 Amendments through the Congress.[50]

Informal acknowledgment of the lobby's role in shaping federal legislation comes from Stephen Bailey's study of Washington education lobbies. He asked high-level federal policymakers and Congressional aides to rate the effectiveness of over 300 educational interest groups. He found that the AVA was listed fourth of the eighteen most effective lobbies.[51]

None of this, of course, is conclusive. These are perceptions and reports. But what cannot be ignored is that since the 1930s every piece of vocational education legislation authorized and appropriated more funds than the previous law. Nor can it be ignored that increased appropriations have come in the face of blue-ribbon panels and federal reports that contained many substantial criticisms: Russell report (1938) Panel report (1963); General Accounting Office report (1974); National Panel on High Schools and Adolescent Education (1976).

Much research, nonetheless, remains to be done. How does the organization operate internally? What does the staff (10 in 1955; 35 in 1977) do to maintain relationships with Congress? With the field? Also the interlocking network between AVA, Office of Education bureaucrats, Congressmen and Senators supportive of vocational education and House and Senate Committee staff has yet to be mapped out. Similarly, the state network of vocational supervisors, AVA leadership, college professors, legislators and local school officials is another terrain badly in need of mapping.[52]

Fragmentary as this review of AVA is, there is little question that the effective tactics of a half-century old progressive coalition to subsidize school reform through federal funds are still employed to "promote, protect and improve vocational education." But does AVA efforts fully explain vocational education legislation? Is the small band of dedicated, shrewd and active lobbyists housed across the river from the Capitol the only thing between the continuing existence of vocational education and its disappearance?

Probably not. But no explanation for the persistence of legislation over the years can omit tracing in detail the role of AVA.[53]

Nor can any answer to the question of resiliency ignore or diminish the triumph of the idea of vocationalism in the minds of educators, reformers and parents. By 1918, vocational preparation had already become one of the Seven Cardinal Principles of schooling. Subsequent decades saw the hardening of this belief into a primary purpose of the high school. Preparing students for jobs if they didn't go on to college was expected of secondary schools. The shared belief became an essential ingredient of the ideology of public schooling.[54]

This triumph of the vocationalism ideology made federal legislation for improvements in vocational education seem sensible and worthwhile to both lawmakers and constituents. What made vocationalism victorious ideologically was that vocational education, like many other early twentieth century reforms, was sold and installed as a school-based solution to national problems. Vocational education promised, according to its pre-1917 promoters, to assimilate immigrants into the labor force, overcome poverty, check migration from farm to city, permit the United States to compete on equal terms with foreign producers and cut school drop-outs. In the Depression, vocational education would take care of unemployed youth; in World War I and II, vocational education would equip factory workers for the war effort; in the 1960s, it would give the country technological superiority and train the unemployed; in the 1970s, it would train the poor, handicapped and excluded to enter the labor market and find meaningful jobs. Yet, there is no body of evidence that points to the fulfillment of these multiple and contradictory promises.[55]

Does this reflect the traditional public faith in the potency of schools to do pretty much anything it sets its mind to? Perhaps. David Cohen and Bella Rosenberg, however, suggest other possibilities for public acceptance of laws that somehow produce very little of what was intended.

Some laws, they say, fail miserably in effecting what was intended legislatively yet were passed repeatedly for other, equally important, reasons. Using mid-nineteenth century compulsory attendance laws as an example, they review the promises made for such laws: they would insure equality, curb delinquency, improve morality and improve schooling. None of these anticipated outcomes occurred, Cohen and Rosenberg point out. How to explain the failure? Laws, they say, are rational instruments of social policy but they are more. Laws express "attitudes, values and states of mind." Laws are sometimes passed "less for what they produced than for what they promised and preached." Laws can be viewed as declarations of faith, a "form of political theatre."[56]

> Like plays, laws can be understood in terms of how they shape moral and emotional expression for an audience, not just in terms of their functional impact on a 'target population.' Like plays, laws can be seen as an encounter between an organized presentation of meaning and an audience. Legislation involves expressive and communicative encounters between those who shape and articulate meaning in the culture and those who listen and respond.[57]

Consider, then, that vocational education laws may declare the public faith in schools preparing youth for jobs for no other reason than that is what schools ought to do. Failure to achieve legislative intent may be less important than expressing citizens' deep feelings for what schools should do. Or perhaps easing the guilt of elite parents and of educators who have spent most of their time and effort on college bound students.

This view may also be linked to how work and schooling intuitively click in people's minds. In a society where work and productivity are so "crucial to an individual's sense of accomplishment," Norton Grubb points out, "it is immediately appealing to turn to work and work experience as the appropriate way to socialize the young."[58]

Explaining the tenacity of vocational education in the face of repeated failures and stubborn criticism, one must take into consideration the role of the AVA, the effective selling and reselling of vocational education as a school solution to national problems and the possibility that laws are tools to achieve social ends and symbolic ways for legislators to declare public faith in verities.

Tentative and speculative as it has been, this omnibus explanation suggests an enduring resiliency of vocational education. Critique after critique of vocational education may yield journal citations and dissertation footnotes,but if the record means anything, these paper blasts have led to increased dollar appropriations, streamlined procedures and perhaps the federal interest becoming more defined. No criticism, no evaluation has yet produced less Congressional affection or diminished determination to express faith in vocational education through legislation. This suggests that vocational education is politically insulated from serious, comprehensive evaluations and government studies that recommend retrenchment, reorganization or dismantling.

What happened to implementation of federal legislation that led writers to conclude that state and local school *systems resisted Congressional efforts to improve vocational education?*

Before answering the question, clarifying the term implementation and setting the context for its use are necessary.

Implementation means executing a policy: translating a decision or law into programs. Focusing on the process of converting a law into practice requires more than deciding how well or how poorly the law was drafted, although faulty or blurred legislative goals often foul up implementation. Nor does stressing what happens after the bill is signed imply that the results of the law are either significant or trivial although ineffective or tardy execution can determine the shape of outcomes. While implementation is affected by the clarity or murkiness of the policy decision itself and while the process influences what actually happens, this analysis stresses what administrative and political actions took place to achieve legislative intent. Effective implementation, then, would only mean that "the program was able to do what it set out to do in the time it set for itself."[59]

As for the context, three points need to be made: the considerable diversity in state and local governance, organization and operation; the "dynamic conservatism" that so often marks local school system responses to mandated changes; and rival conceptions of implementation.[60]

The diversity in governance, organization and operation of vocational education is stunning. Donald Gentry identified four different state governance patterns to meet the federal mandate. In addition, how state boards of education organize themselves with their superintendents, directors of vocational education and state departments differ.

Structural differences in governance only scratch the surface. State size, wealth, political culture and scores of other traits add to the diversity. The assumption, of course, is that these traits influence organizational and individual behavior. That assumption remains still untested.[61]

At the local level where there are currently about 16,000 school districts, the variety is equally as remarkable. School districts are large and small; rich and poor; rural, suburban, small city and metropolitan. Some districts are organized elementary through high school; others are only elementary or only high school. Some school systems have appointed boards while most are elected. Some districts have teacher and principal unions; others do not. Variations among and even within local school systems—and the ones mentioned are only a few—are staggering. In complex, still unknown ways, these differences affect how federally or state-mandated changes are viewed and responded to.

Finally, all of these organizational pieces (boards, superintendents, central administration, principals, teachers) either within a local or state system are loosely tied to one another. While paper authority—i.e. organizational charts—makes school systems appear as tightly-controlled, quasi-military organizations, there is a great deal of independent behavior shown by teachers and principals to school board and superintendent direction. Decentralized, discretionary behavior by groups within a school district only increasesdiversity in performance.[62]

State and local diversity and loosely-linked organizations must be incorporated into any discussion of implementation because the variety and organizational looseness heightens uncommonly the complexity of translating policy into practice. If one views implementation as a fragile chain stretching from the lawmakers through a federal agency containing many bureaucratic levels and finally, to the thousands of school districts with their internal variety, only a shadow of the complexity is suggested. This conventional image of a chain suggests the potential for gaps and breaks in implementation once a bill is signed into law.

Another point to establish for a context is the stubborn continuity, the tendency to fight to remain the same, that describes local responses to intentional change efforts in instruction, curriculum and classroom organization over the last century. Much has been written about how innovation seldom got past the classroom door; how staffs surrounded and absorbed program changes, leaching them of novelty and transforming them into conventional practices; or how staffs just sabotaged changes.[63]

None of this is to say that schools have not changed, since they obviously have. Services have been added. Organizational and governance reforms have occurred. Curriculum has expanded. But once past these important changes, basic classroom instruction and organization have altered minimally. If this is so, and far more research needs to be done on this point, it has occurred because public school teachers and administrators in the last century have faced a fundamental question and provided similar, limited answers to that question in their schools and classrooms:

> What are the different ways to teach in and manage an organization where students are unselected and come involuntarily; where instruction is delivered by an adult isolated from peers to a group of 25 to 30 or more children in one or more rooms from five to seven hours a day, thirty or more weeks a year?

The limited answers to that question, e.g. graded classrooms, textbooks, teacher-directed instruction, uniform curriculum, quiet and orderly classrooms, have persisted well over a century in the face of repeated, forceful and imaginative efforts to change classroom instruction and organization for very substantial reasons. Thus, dogged conservatism in instruction must be considered when implementation of an external mandate is raised.

Finally, there is the point about viewing implementation from more than the traditional linear perspective. David Cohen, John DeSanctis, and Eleanor Farrar have sketched out three distinct views of the process:

Center-to-periphery. This is the familiar view of programs conceived by federal officials and carried out by local districts. Active federal agencies setting goals and making blueprints while state and local districts accept passively what comes down is the point of view. When programs fail, according to researchers who embrace this linear, social engineering perspective, it is because federal officials either expected too much, too quickly of messy, often irrational state and local organizations or the fault, as other investigators have concluded, was simply local sabotage or malfeasance.[64]

The dominant image of this perspective is the chain stretching from Congress to the local school with federal officials sure-footedly stepping from one link to the next as they achieve one objective after another.

Bilateral Process. Citing the RAND study of Office of Education sponsored innovations that found mutual adaptation between local and federal aims in those programs that succeeded, Farrar and colleagues say the bilateral perspective casts local districts as active participants, not spectators, to federally-designed changes. Federal goals are negotiated with local ones. The dominant image is not of a chain; it is a tug-of-war between equally matched participants hauling and pulling.

Multilateral Process. This perspective views a federal program from the local school district's viewpoint. In this view, dozens of local concerns and problems jostle one another, competing with the federal mandate. Budget problems, school closings, principal firings, lawsuits, threatened teacher strikes and a host of other issues compete for the decisionmaker's attention.

Within this kaleidoscopic whirl, a federal blueprint for a program legislatively authorized can corner only passing notice. This conception is based upon organizational research that established how loosely organized, decentralized and vaguely interdependent portions of a school system are. Implementation from this perspective becomes problematic. Groups within the system view federal plans differently; attention is erratic; linkages are fragmented and disjointed--the ankle bone is sometimes connected to the thigh bone.

These multiple perspectives are useful because they expand the familiar, linear top-to-bottom view of implementation to embrace other possibilities. In analyzing the implementation of federal vocational legislation since 1917, these conceptions will be used.

Given this context, let me turn to the initial question on implementing federal legislation. Two periods clearly emerge: 1917-1963 and 1963 to the present.

The Federal Board of Vocational Education Administers the Law, 1917-1933. In the first two decades after the 1917 legislation, implementation by the FBVE at the state level, particularly, was effective, i.e. programs intended by the law were installed in the time set for them. At the local level, the evidence is inconclusive and sparse. The evidence for this statement is neither substantial nor comprehensive. It is suggestive rather than conclusive. Evidence comes from federal and state reports both from agencies and independent evaluations; from recollections of administrators themselves and studies done about other topics that tangentially describe federally-subsidized vocational education.

The writings of Charles Prosser, Charles Allen, J.C. Wright and Layton Hawkins—all staff members at various times with the FBVE—describe the hectic, intense and productive early months of implementation.[65] Within one year, 1917-1918, all states had passed enabling legislation to receive funds, submitted State Plans that complied with the law's requirements, initiated teacher training in colleges, and began receiving reimbursement. In addition, within a few years after the law was passed, state departments of education and vocational divisions had organized themselves around the occupational categories named in the law.

This was an impressive achievement in legislative implementation.

The creation of a State Plan signed by both state and federal authorities, its review by the FBVE and the staff-written regulations that followed made it possible for the Federal Board to influence directly state vocational programs while contributing modest financial support.

Regulations were encased in Policy Bulletins, the first of which was published in 1917. Each Policy Bulletin and its subsequent revision appeared in the Federal Register and gave staff-written rules the authority of law. While Policy Bulletin 1 was revised five times before 1963, basic portions written by Prosser and the staff in 1917 were retained. For example, thirteen of eighteen topics on which rules were written in 1917 were essentially the same in 1937.[66]

The Policy Bulletin contained specific requirements for State Plans. To insure that states produced uniform plans consistent with requirements, topical outlines for a State Plan were written by FBVE staff and given to each state director of vocational education. The staff's close attention to uniform, detailed plans tailored to the legislation was confirmed in the 1938 Russell report. State officials told Russell that "federal agents participate actively in the drafting of the plan by the State officers." Even before a plan goes before the State Board for approval and submission to the FBVE, "the criticism of the Federal officers has been obtained and the plan may have been substantially revised under their guidance."[67]

Worse yet, according to Russell, was how, on occasion, federal officials exceeded their authority and state bureaucrats acquiesced. The Smith-Hughes Act, he pointed out, made no mention of devoting three consecutive clock hours per day to strictly vocational subjects. Because it was an interpretation of FBVE staff and included in the requirements "most state and local officials apparently believe it to be a provision of the Organic Act itself."[68]

The effectiveness of federal-state implementation may rest in the obvious explanations that the reformers—Prosser, Allen and many early members of the FBVE—administered the law. Where implementation often breaks down initially is when those who design the policy or legislation have no part either by choice or plan in executing the decision or law. This was not the case with the Smith-Hughes Act. Moreover, the implementors used a clear-cut, systems management or accountability model which became commonplace as a federal strategy in subsequent decades but was novel for that time. In short, federal implementation of the Smith-Hughes Act worked out of the center-to-periphery model described earlier. And the mood of most state educators toward vocational education was receptive; it was an idea whose time had come. Finally, the critical mass of expertise on vocational education was located at the federal, not the state, level. Few experienced state supervisors were available; those state officials looked to Washington for guidance.

Implementation within the states' thousands of local school districts is less obvious and unclear. There is little question that the lure of federal dollars led to hiring more vocational supervisors and teachers in the targeted occupations and the creation of courses. Enrollment figures, flawed as they are, reveal, at the very least, higher numbers of participants than prior to 1917 although the percentage of students in vocational education may not have increased dramatically.

In one 1932 study, for example, high school courses in fifty-four cities were compared before and after the 1917 legislation. High school courses offered in home economics increased from 53% in 1915-1917 to 95% of the high schools offering home economics in 1930-1931; agricultural courses offered in high schools increased from 12% (of the) schools studied to 45% in the same period; and industrial arts courses in high schools from 27% to 82%. Another way of showing the results of implementation at local high schools is to check scheduled class hours. One 1939 study of home economics courses revealed that federal reimbursed schools generally scheduled the mandated requirement of a double period of instruction with no classes scheduled for less than one period.[69]

As suggestive as this limited evidence seems, other data discloses gaps in implementation. In one study of a number of cities, the percent of student time in 1931 devoted to vocational subjects varied from a low of 1% in New Orleans to 29% in Joliet, Illinois for industrial arts; or in another fourteen city study, student time in home economics courses was 4.7% in 1923-1923; seven years later it dropped to 3.8%. Similarly, an investigation of small, Midwest city high schools before and after the World War I legislation showed that the percentage of high schools offering industrial arts courses was 13.8% in 1915-1918. A decade later, it was 13.4%.[70]

Also access to vocational programs seems to have been restricted. A New York state study in 1935-1936 uncovered that all day trade and industrial courses were available in only thirteen communities, most of which were cities over 60,000 in population. Of 978 New York cities and towns, 479 did not offer Home Economics courses in high school. That many vocational opportunities might have been confined to urban areas is supported by a national study of home economics where 43% of schools located in the "open country" lacked such offerings.[71]

Consider also the observation of an anthropologist who lived in a Midwest rural community between 1939-1941. The first vocational agriculture teacher was hired in 1933, a decade and a half after federal legislation was passed. Vocational agriculture, the anthropologist said, was the "only subject in the high school curriculum which in content and instructional method is completely appropriate functionally to the needs of the community and it is the only subject which a large portion of the community opposes and ridicules."[72]

What complicates the local implementation picture even more is that there were vocational and regular high schools that chose not to buy into the federal subsidy. Franklin Keller reported that such prominent vocational schools as Milwaukee's Boy's Trade and Technical High School and Detroit's Cass Technical opted out. Cass Tech's principal explained:

> We have no Smith-Hughes classes in our day program. There are several reasons for this, but the sufficient one is that the time requirements of a three clock hour session in shop (or fifteen hours a week) and a three hour session in 'related work' is not flexible enough for our program.[73]

An additional factor that comes into play when state-to-local implementation is considered is to look at the state administrators who were expected to carry out federal mandates.

In 1918, the Federal Board determined that Smith-Hughes funds set aside for teacher training could be used to pay salaries of state vocational education supervisors. This regulation (it is not in the Act) stimulated the growth of supervision.

"Many of those appointed to supervisory positions in the early days of the program," Prosser and other former FBVE staff wrote, "had a meager conception of the work." State administrators had to deal with an activist FBVE staff and a network of complicated federal regulations. Unlike the federal bureaucrats, many of whom had been involved in the lobbying and drafting of national legislation for vocational education, state directors and supervisors were drawn from vocational education instructors on college staffs just to get the program underway.[74]

Consider further the roles state supervisors were expected to play. "The state supervisor," Prosser and his colleagues wrote, "was a missionary in his state, an itinerant teacher of teachers, and ... a stimulator of communities." Moreover, the supervisor "had the onerous duty of checking the work of teachers and schools." He or she had to judge whether or not teachers taught well, schools were effective and whether federal standards within State Plans were being met.[75]

A New York study of vocational education in the 1930s described the business education supervisor's role.

> In addition to being responsible for the Regent's Examination, the supervisor is required ... to inspect and supervise the high school commercial

> departments, visit registered private business schools, prepare special reports, revise existing syllabi and prepare new ones, to cooperate with Teacher Education and Certification Division, to work with the various teacher training institutions and to maintain contacts with various organizations concerned with business education.[76]

Few supervisors accomplished these and similar tasks. In Home Economics, for example, by the end of the first decade after passage of the law, forty-four states had only one supervisor for all its teachers; seven of these states had two or more full-time supervisors and turnover among these supervisors following the passage of the law ran to 44% by 1927. Even at a later date, the supervisor-teacher ratio was very low. Alabama, for example, in 1947 had nine state department staff members for every 1000 vocational teachers. The most supervisory time available was in rural states; in New York, Pennsylvania and Massachusetts, by contrast, the ratio of state staff to 1000 teachers was only 13, 22, and 13 respectively.[77]

How often did supervisors visit teachers? Russell reported one survey that found vocational agriculture teachers being visited three to four times a year. This was probably higher than average; most supervisors found their way into teachers' classrooms probably no more than once a year. Whether it was one or four, the point is self-evident: very little contact. The reason for so few classroom observations is simple—hundreds of teachers spread across an entire state for each supervisor was just too large a load to carry, given the other responsibilities that these men and women were expected to perform.[78]

However infrequent such visits were, however well-intentioned and smiling the supervisor was, the occasional arrival of a state official was probably viewed as an inspection by teachers. In the early years of vocational supervision, few teachers, Prosser wrote, "welcomed the supervisor into their classrooms and still fewer 'confessed their weaknesses' and sought professional training in order to do a better job of teaching." None of this is to suggest that annual conferences, summer sessions, bulletins and classroom visits were trivial or insubstantial services to teachers. They were, however, probably insufficient to make an enduring impact upon classroom instruction. The organizational linkages expected from supervisors, i.e. to knit together tight managerial ties with school districts and teachers, couldn't develop with limited numbers of personnel and conflicting roles. Slackness and the traditional autonomy of schools prevailed.[79]

All the evidence cited here is, of course, fragmentary. At best, it can only suggest the inconclusive, scattered and erratic implementation of Smith-Hughes requirements at the local district level. Few intensive, well-documented studies have been made on how widespread vocational course offerings were; how available to students in different school systems were such opportunities. Also size of classes, training of teachers, the nature of the classroom instruction remain difficult to determine without carefully detailed local studies of comprehensive and vocational high schools.

If federal implementation of the Smith-Hughes Act was conceived and executed from the center-to-periphery perspective, such a conception was probably inapplicable for state-to-local implementation, at least considering the partial evidence. The initial unfamiliarity of state supervisors with the law and its national drive for a federal subsidy, the many and conflicting expectations buried within prevailing notions of supervision, too many teachers for each supervisor to monitor, the normal reluctance of teachers and administrators to "confess their weaknesses" and organizational looseness made state-to-local implementation presumably more of a bilateral or multilateral process, depending upon the school district.

Office of Education Administers a Law, 1933-1963. The policies, procedures and functions begun in the first sixteen years under the FBVE remained largely the same after Congress transferred administration of the law from the FBVE to the Office of Education in 1933. At this time, FBVE's Executive Director, J.C. Wright, whom Prosser hired in 1917 as a trade and industrial education agent, had been chief since 1922. After the transfer, he became Assistant Commissioner for Vocational Education and remained in that position until 1946 when he retired.

The basic organizational structure established under the FBVE—sections for each occupation, e.g. agricultural education, etc.—was adopted by OE and remained intact until 1963 except for the adding of legislatively mandated occupations such as distributive education.

The shift to OE reduced the federal role in vocational education. Prosser viewed it as a loss of independent authority and influence for the FBVE. At OE, at least two bureaucratic layers separated the Assistant Commissioner for Vocational Education from the Commissioner. When the Commissioner met with his top staff no vocational education official attended these meetings.[80]

The reduced visibility of the federal presence in vocational education probably contributed to a hardening of existing patterns. Routines took precedence over initiative; standard operating procedures went unquestioned. The primary OE functions of collecting data, publishing bulletins, providing technical assistance to state and local school systems became norms for the Division of Vocational and Technical Education. Monitoring, inspection and tough-minded reviews of State Plans were foreign to OE officials at this time.[81]

The initial center-to-periphery conception of implementation that was embedded in FBVE's early strategies continued at OE after the 1933 transfer shrunk the federal role. And OE staff, many of whom had worked under the FBVE, continued to seek compliance with Policy Bulletins but, as Russell reported, there was considerable mellowing from the Federal Board's aggressive promotion and review of local efforts.

From 1917-1963, then, first under FBVE and later OE, federal implementation of the Smith-Hughes Act and its subsequent legislative changes was probably effective with the states and less so with local school districts, evidence in the latter case being sparse. Recall that effective, as used here, only means that vocational education programs were established to do what was intended in the time set for execution. If there was any overt resistance to implementation by states and local districts prior to 1963 as the initial question posed, the partial record does not show it. If implementation did not occur, it was probably less due to conscious resistance and more due to state and local diversity in structures, administration, etc. Grandiose and conflicting roles for state supervisors and persistent and autonomous local practices probably insulated schools and classrooms from mandated changes.

Implementing the 1963 Vocational Education Act and the 1968 Amendments. The verdict of most informed observers, researchers and independent federal studies on how well the Smith-Hughes Act was executed at the state level is clear. Prosser, Russell, Barlow, Venn and others saw the law as being carried out effectively. The verdict of a similar group of writers on the implementation of the 1963 law and its subsequent amendments is equally as clear. Garth Mangum, David Rogers, Michael Kirst, and Joel Berke, Mary Ellis, the National Advisory Council, investigators for the General Accounting Office and others found these laws haplessly, erratically and ineffectively executed at both the state and local levels. State and local school districts, they concluded with different degrees of emphasis, hewed closely to traditional Smith-Hughes practices, resisted federal efforts and, if changes did occur, modified arrangements no more quickly than wind erodes rock. Congress seconded the verdict of ineffective execution of the 1963 law when they passed the 1968 Amendments and later changes.[82]

The evidence presented in these reports and by these writers is rich in detail of ineffectual and hapless implementation:

Item: "Programs for hardcore unemployed have not been developed in relation to the need."

- "Few programs have been developed to reach the high school dropout."
- "States have not allocated resources for curriculum materials development commensurate with the need."[83]

Item: A researcher who investigated New York state vocational education programs in the early 1970s concluded that: "of all the federal school programs in New York, vocational education has been the most free from federal control, the most resistant to urban claims and the most protective of its long established autonomy within the N.Y. State Department."[84]

Item: The 1974 GAO report concluded that "in many instances federal funds have been used to maintain existing activities year after year rather than primarily to initiate new program options."

. One state Assistant Commissioner for Vocational Education told GAO investigators that to end protracted conflict with the state legislature over state funds, "his agency paid the bulk of the state administrative costs with federal funds because these funds did not entail rigorous managerial review and accountability."[85]

Item: A researcher concluded in a 1973 report that "a disproportionate amount of vocational education funds still goes into home economics and agriculture."[86]

Item: While federal spending in vocational education increased 550% between 1960 and 1970, state and local spending for the same service increased 700%. A researcher concluded: "... although Congress expanded and refocused federal support for vocational education through the 1963 Act and the 1968 Amendments, enactment of the legislation did not lead to an increase in the proportion of federal funds in the outlay for vocational education."[87]

These informed observers, researchers and federal reports generously distributed blame for ineffective implementation to a

Congress that added new, ambiguous goals to vocational education legislation already top heavy with old, blurred ones; to encrusted, lethargic OE bureaucracy married in spirit if not in membership to the AVA; recalcitrant state officials who took federal dollars with one hand and thumbed their noses at OE requests with the other; and reluctant local officials who only wanted a continuing federal subsidy to support and expand vocational programs that had been in operation for decades.[88]

The tone, if not the detail of these writings on implementation, assumes that the federal and state entrenched bureaucracies or stubborn local educators frustrated the designs of lawmakers. Some researchers do explore the possibilities that the design itself, the law and follow-up regulations were so seriously flawed that implementation could achieve very little. Most of these works assume a center-to-periphery conception of program execution at their core. Few studies embrace alternative views of federal implementation or examine the process from the state or local perspective.

Few also take into consideration the organizational difficulties of changing state administrative practices embedded for decades into loosely-linked complex bureaucracies. Fewer still investigate the actual process of carrying out federal programs. The Endo and Wirt and Summerfield analyses of Grant Venn's work at OE in the late 1960s in implementing a special vocational education program are just two of a slim number of such studies.

In short, then, the answer to the question of why writers have concluded that state and local school systems resisted Congressional efforts to improve vocational education is that the notion of resistance derives from a center-to-periphery view of program consumation. Such a conception dominates writing in the field. The question shifts dramatically if bilateral or multilateral perspectives that recognize the fact of diversity are used. To ask what local and state factors are at work that shape federal implementation efforts is a very different question. Investigators should ask it.

Any answer to such a question would need to explore organizational processes within local and state bureaucracies, political forces at work both locally and at the state level and the persistent, dynamic conservatism that marks schools and classrooms.[89]

While the interpretation leans heavily upon an organizational perspective, there are, of course, competing explanations for the apparent ineffectiveness of local and state responses to vocational education. Consider some rival interpretations: the impact of continuing low enrollments in vocational programs and the existence of alternative programs (continuation programs, Civilian Conservation Corps, etc.) that drained away students from mainstream, fulltime vocational programs; the ebb and flow of worker demand in various labor markets that was often out of sync with school system vocational goals; the stubborn obstacles inherent to using educational solutions to solve economic problems; or the deeply embedded attitudes of middle class and working class parents to work and education.

Each of these competing explanations by itself or in concert with other views can make a plausible, if not compelling, case in explaining why state and local school systems behaved the way they did in executing the changing federal mandate. Each interpretation clothed in facts and arguments could persuade reasonable people to view this issue through a different lens. So the organizational interpretation presented here, admittedly, is one of a number that could have been used to explain a complicated phenomonon. Why was it chosen? When a writer chooses what weight to give the various factors that explain something, the writer's experience inevitably colors the choice. And so it was with me.

I have served in the public schools for almost a quarter of a century as both teacher and administrator. The impact of organizational processes upon the initiation of new programs, the rational and irrational elements at work daily in the institution, and the plainly visible shaping of individual and group behavior that occurs I have seen and felt firsthand.

Such evidence drawn firsthand from my experience, seasoned and enriched by research, counts. I have entered that experience into the equation that researchers like myself must construct as they give weight to the various factors that influence what happened to programs mandated by law. That is why I have come out where I have. In doing so, readers should be aware that other interpretations for what I tried to explain are both available and plausible.

SUMMARY

Among the many puzzles and contradictions that revealed themselves in this brief study of the politics and implementation of federal legislation on vocational education, I have dealt with only two. In tracing the origins, enactment, and implementation of two significant laws in the last six decades, two puzzling questions emerged:

1. In the face of so much public evidence of either unclear results or ineffective implementation or both at the secondary school level why were vocational education appropriations regularly approved by Congress decade after decade?
2. Why did a number of writers conclude that state and local districts resisted implementation of these laws?

Because very little has been written by historians and political scientists about the politics and program execution of these laws, a short review and analysis rather than a full-scale study resulted. Thus, the answer to the initial question is at best, tentative and,in part, speculative. I have focused upon the role of the AVA; the effective selling of vocational education as a solution to national problems since the turn of this century by educators, reformers and coalitions of businessmen, public officials, unionists and interested laymen; and finally, the symbolic importance of laws as ways for legislators to express their public faith in what schools ought to do. This tentative answer suggests that historical, political and social-psychological analyses might be combined to further explore this question.

For the second question, I broke the answer into pieces and tried to establish that federal implementation of the Smith-Hughes Act was very effective at the state level, particularly under the aegis of the Federal Board of Vocational Education. For the 1963 legislation and subsequent amendments, state level implementation was spotty and where compliance occurred it may well have been token rather than widespread. Research evidence for local implementation was fragmentary, confusing and sparse. No firm conclusion, then, could be drawn about what actually happened in local school districts as a consequence of federal and state execution of vocational education legislation.

In addition, the way of looking at implementation was expanded beyond the traditional linear federal-state-local chain of implementing Congressional intent. Other perspectives on implementation suggested that researchers might ask different questions were they to investigate program implementation stemming from federal laws. In particular, I suggested that researchers look at political forces at work both locally and in the state, how things get done organizationally in both state and local bureaucracies and the behavior of principals and teachers in responding to state and federal mandates.

Of course, these answers are not the only ones. Nor are the questions necessarily the best ones to ask of the material. They happened to be ones that intrigued me as I got deeper into the sources. I expect that researchers examining the same or similar sources would pose different questions and discover quite different answers. I hope they will.

I had to limit my investigation and in doing so could not touch other research areas that need examination. While I have referred to them in passing, they deserve reemphasis in this summary.

The Federal Board of Vocational Education was a natural experiment in the federal government shaping directly what schooling should be like. The Board's two decade history deserves recapturing. The continuing absence of detailed description and careful analysis of what happened in local school districts after the various states embraced the legislation, distributed dollars and hired supervisors will retard any serious interpretation of the extent and effectiveness, much less the role, of vocational schooling. The virtual absence of any serious histories of vocational schools or descriptions of vocational classrooms, teacher and student behavior, etc., also prevents reaching conclusions on anything more than speculation.

Such research often seems far removed from the decision making arena in Washington or various state capitals. Perhaps. For policymakers, who invest public funds in vocational programs, an historical awareness of what has transpired in enacting and implementing the federal legislation, may well season or illuminate the difficult choices that must be made. Since policymakers have pictures of what happened in their heads, historians can try to make sure that the pictures of what happened are reasonably accurate. It is up to the policymakers to see if these pictures match the ones in their heads as they make decisions.

CITATIONS AND NOTES

[1] Edward A. Krug, *The Shaping of the American High School*, Vol. 2 (New York: Harper and Row, 1972), pp. 310-311.

[2] Franklin Keller, *The Double-Purpose High School* (New York: Harper and Brothers, 1933), p. 181.

[3] Report of the Panel of Consultants on Vocational Education, *Education for Changing World of Work* (Washington: U.S. Government Printing Office, 1964), p. 2.

[4] John D. Russell, *Vocational Education* (Washington: U.S. Government Printing Office, 1938); Panel of Consultants report; General Report of the Advisory Council on Vocational Education, *Vocational Education*: *The Bridge Between Man and His Work* (Washington: U.S. Government Printing Office, 1968); Comptroller General's Report to the Congress, *What is the Role of Federal Assistance for Vocational Education*? (Washington: General Accounting Office, 1974).

[5] Melvin Barlow, *Burkett--Latest Word from Washington* (Washington: American Vocational Association, 1977), p. 30.

[6] Marvin Lazerson and Norton Grubb (eds.), *American Education and Vocationalism* (New York: Teachers College Press, 1974) raise this point explicitly.

[7] The Smith-Hughes Act (1917) was extended and expanded by the following laws: George-Reed Act (1929); George-Ellzey Act (1934); George-Deen Act (1936); George-Barden Act (1946). Amendments to these laws and additions to other legislation that included vocational education such as the National Defense Education Act (1958), Area Redevelopment Act (1961) and Manpower Development Training Act (1962) also occurred in these years.

The Vocational Education Act (1963) departed significantly from the Smith-Hughes pattern and subsequent amendments to the VEA in 1968, 1972 and 1976 enlarged and further defined the 1963 organic Act. See J. Chester Swanson, *Development of Federal Legislation for Vocational Education* (Chicago: American Technical Society, 1966).

[8] Lawrence Cremin, *The Transformation of the School* (New York: Vintage, 1961), p. 56; Melvin Barlow, *History of Industrial Education in the United States* (Peoria, Illinois: Charles A. Bennett Co., 1967), pp. 51-66; Grant Venn, *Man, Education and Work* (Washington: American Council for Education, 1964), pp. 56-57; Sol Cohen, "The Industrial Education Movement, 1906-1917," *American Quarterly*, Vol. 20 (Spring, 1968), p. 110; C. H. Edson, "The Reform of Vocational Education," *Urban Education*, Vol. XII, No. 4, (January, 1978), p. 452; Vincent P. Lannie, "The Development of Vocational Education in America: An Historical Overview," in Carl Shaefer and

Jacob Kaufman (eds.) *Vocational Education: Social and Behavioral Perspectives* (Lexington, Mass.: D.C. Heath Co., 1971), p. 17; Berenice Fisher, *Industrial Education* (Madison, Wisconsin: University of Wisconsin Press, 1967), p. 135.

[9] Arthur Wirth, *Education in the Technological Society* (Scranton, Penna.: Intext Educational Publishers, 1972), pp. 80-82, 162; Melvin Barlow, *The Unconquerable Senator Page* (Washington: American Vocational Association, 1976); Paul McBride, "The Co-op Industrial Education Experiment, 1900-1917," *History of Education Quarterly*, (Summer,   ), pp. 209-220; W. Richard Stephens, *Social Reform and the Origins of Vocational Guidance* (Washington: National Vocational Guidance Association, 1970), pp. 53-67; Charles Bennett, *A History of Manual and Industrial Education, 1870-1917*, (Peoria, Ill.: Chas. A. Bennett Co., 1937), pp. 507, 535-550.

[10] House Committee on Education and Labor and Senate Committee on Labor and Public Welfare, *A Compilation of Federal and Education Laws* (Washington U.S. Government Printing Office, 1975), p. 522.

[11] Russell, p. 46.

[12] The Russell study has already been cited. Some of Charles Prosser's writings are: Charles Prosser and Charles Allen, *Vocational Education in a Democracy* (New York: Century Co., 1925); Layton Hawkins, Charles Prosser, J.C. Wright, *Development of Vocational Education* (Chicago: American Technical Society, 1951).

[13] Barlow, *Unconquerable Page*, p. 48; Lannie, Fisher, Barlow and many authors of vocational education textbooks have drawn extensively from Prosser's writings. In the 1963 Panel of Consultants report, the only historical reference to the Smith-Hughes Act cites one of Prosser's works.

[14] Prosser and Allen, pp. 441-457.

[15] Russell, pp. 44, 46.

[16] *Ibid*., pp. 129, 130, 228, 229.

[17] *Ibid*., pp. 113-114.

[18] Barlow, Venn, Grubb and Lazerson, Wirth and Fisher have already been mentioned. Also see Michael Imber, "Compulsory Continuation Schools for Young Workers: An Early Attempt to Combine Schooling and Work," (Stanford University, Boys Town Center for the Study of Youth Development, no date).

[19] Melvin Barlow, "Bicentennial Issue," *American Vocational Journal*, May, 1976, pp. 64, 75; Melvin Barlow and Mayor Mobley, "Impact of Federal Legislation and Policies Upon Vocational Education," in Melvin Barlow (ed.), *Vocational Education* (Chicago: National Society for the Study of Education, 1965), pp. 191, 193-196.

[20] On this point, Venn, Grubb and Lazerson and Wirth are covered in the text of the paper. Fisher does not judge the law's effects as harshly but does observe that the legislation "assured the essentially regional and local character of trade and industrial education." (p. 133) Also Rupert Evans underscored the obvious result of the law in that no significant vocational education developed below the 9th grade or age 14, in Foundations of Vocational Education (Columbus, Ohio: Charles Merrill Publishing Co., 1971), p. 165.

[21] Venn, pp. 63-66.

[22] Wirth, p. 219; Grubb and Lazerson, p. 30.

[23] Russell pointed to two instances that regulations exceeded the letter of the law. First, the requirement that three consecutive clock hours per day be devoted to vocational subjects is not in the law. Second, the diverting of funds for administration and supervision from teacher training is unmentioned in the legislation (p. 40). In Michael Imber's paper on continuation schools he examines the impact of the Federal Board on schooling.

[24] Lazerson and Grubb, pp. 31-32; Imber, p. 8.

[25] Marvin Lazerson and Norton Grubb, "Rally Round the Workplace: Continuities and Fallacies in Career Education," Harvard Educational Review, Vol. 45, No. 4, (November, 1975), pp. 459, 462.

[26] Lannie, p. 17; Venn, pp. 47, 57; Barlow, Burkett, p. 57; Lazerson and Grubb, American Education, disagree with the view that the 1963 law was a departure in either policy or practice.

[27] The Panel of Consultants report documents the statements on high unemployment and rapid technological development. See pp. 11-17. Also Venn, pp. 6-15. Grubb and Lazerson, American Education, pp. 44-45; Venn, pp. 119-123; Advisory Council report, p. 3; Barlow, "Bicentennial Issue," p. 77; Douglas Kliever, Vocational Education Act of 1963: A Case Study in Legislation (Washington: American Vocational Association, 1965), p. 14.

[28] Panel of Consultants report, p. 109.

[29] Ibid., pp. 224-236.

[30] Kliever, pp. 15-63; Barlow, History of Industrial Education, pp. 430-452.

[31] Barlow, History of Industrial Education, p. 440.

[32] Garth Mangum, Reorienting Vocational Education (Ann Arbor, Michigan: Institute of Labor and Industrial Relations, 1968), pp. 10, 12-13.

[33] David Rogers, "Vocational and Career Education: A Critique and Some New Directions," Teachers College Record, Vol. 74, No. 4, (May, 1973), pp. 490-491.

[34] The Advisory Council report was cited earlier. Readers should note that Garth Mangum was a member of the Council and Melvin Barlow was staff director to the Council. Barlow was also a staff member of the 1963 Panel of Consultants.

[35] Harry Summerfield, Power and Process: The Formulation and Limits of Federal Educational Policy (Berkeley, Calif.: McCutchan, 1974), pp. 140-168; Todd Endo and John Wirt, "Federal Program Analysis," July 1, 1974 (Rand, 1974), pp. V-1-36; Mary Ellis, A Report to the Nation on Vocational Education (Flagstaff, Arizona: Project Baseline, 1975), p. 9.

[36] Advisory Council report, pp. 197-204; Ellis, pp. 9-10.

[37] Barlow, Burkett, pp. 57-66; Summerfield, pp. 140-168; Endo, V-1-36; Mangum, p. 75. This pattern of a national study and its recommendations being incorporated into legislation holds for the 1914 National Commission, the 1963 Panel of Consultants report and the 1968 Advisory Council study. The 1938 Russell report is an exception.

[38] U.S. Office of Education, "The Vocational Education Amendments of 1968," (Washington: U.S. Government Printing Office, 1969), foreword, p. iii.

[39] General Accounting Office report, p. iv.

[40] Ellis, pp. 21-45, 46.

[41] National Institute of Education, "A Plan for the Study of Vocational Education," December 30, 1977, pp. 1-36.

[42] Few annotated bibliographies of writings on vocational education are available. A recent one is in Grubb and Lazerson, American Education and Vocationalism, pp. 51-56. They do not deal with the scanty literature on federal legislation.

Most writers on the topic of vocational education legislation have basically embraced a set of core beliefs, most often unstated, on the high value of vocational education to the national interest and that vocationalism in schools will improve the life chances of the majority of students who chose not to continue their formal schooling. These core beliefs rest upon the fundamental premise that the existing economic system, imperfect as it is, nonetheless is worthwhile and needs to be better tied to formal schooling. Prosser, Bennett, Barlow, Venn, Russell and others generally shared these beliefs, while differing among themselves over strategies and tactics.

Prosser and Barlow, for example, as passionate promoters of vocational education and participants in legislative battles, boosted the enterprise by spreading the gospel. What they wrote and how they expressed advocacy mirrored that faith. Venn, Evans, Keller and others--also vocational educators--were pragmatic supporters of vocational education who saw that some legislative and bureaucratic strategies were better than others. Their prose lacked the evangelical ring of true believers. They analyzed and criticized; they collected and used evidence dispassionately and either recommended or carried out improvements.

Wirth, Fisher, Krug, Cohen, Cremin and Grubb and Lazerson are historians who have written about vocational education, touching upon federal legislation. Wirth, Fisher, Cohen, Krug and Cremin deal mostly with the ideological debates at the turn of the century and in later decades. Their analyses of the arguments put forth by partisans and antagonists of vocationalism provide a useful mapping of the intellectual (but not operational) terrain. Except for Cohen, there seems to be general agreement between these historians and Russell's and Venn's judgments on the significance of federal legislation. Also there does not appear to be any serious questioning of the core beliefs described above. While Wirth and Krug, for example, raise questions about the wisdom of the reformers' views and the doubtful legacy they bequeathed to mid-twentieth century educators, Cohen raises far more grave questions about the reformers' intentions, the sources of their motives and the basic assumptions about the purposes of schooling.

Grubb and Lazerson move beyond Cohen. They reject Prosser's and similarly situated advocates' assumptions and substitute a different set of beliefs. They begin with the premise that the economic system produces massive inequalities in resources and opportunities. Schools can do little to ease or remove those inequalities;if anything, they argue, schools strengthen these inequalities by duplicating them in each generation of students. Their conclusions that vocational education has failed repeatedly, regardless of reformers' intentions, have also led them to conclude that vocational education is a politically safe reform that will leave the basic workings of the economic system untouched.

While Lazerson has identified himself as a revisionist and Grubb's work places him in that category as well, their long essays on career education and the introduction to their book of selections on vocational education soften some of the more flat pronouncements made by radical historians on reformers' motives, the functions of schooling and economic elites dominating minorities and the poor. Nonetheless, they see continuities in vocational education that tie the current efforts to install career education with early twentieth century reformers getting vocationalism accepted. They pay little notice, however, to the development of vocational legislation after 1920.

[43] "Fifty Years of Progress in Professional Organizations," American Vocational Journal, December, 1956, pp. 91-97.

[44] Barlow, Unconquerable Page, p. 26; Stephens, p. 132.

[45] Stephens, p. 132; Barlow, History of Industrial Education, p.132; Summerfield, p. 141.

[46] Barlow, Burkett, pp. 162; Barlow, "Bicentennial Issue," pp.87-88.

[47] Barlow, Burkett,pp.25-43; Summerfield, pp.130-168; Russell,pp.20-23.

[48] Venn, p. 60; Russell, p.22.

[49] Krug, pp. 310-311.

[50] Barlow, Burkett, pp. 57-66.

[51] Stephen K. Bailey, Education Interest Groups in the Nation's Capital (Washington: American Council for Education, 1975), p.28.

[52] Barlow, Burkett, p. 10.

[53] One veteran lobbyist stated: "But for the American Vocational Association and its predecessors, there would be no such financial aid today." M.D. Mobley, "History of Federal Funds for Vocational Education," American Vocational Journal, December, 1956, p. 98; Norton Grubb also explores the issue of resiliency and persistence of vocational education in the face of critical evaluations. He dismisses AVA and the "vocational education establishment" as a "cynical explanation" for the phoenix-like reappearance of vocational education. See his "The Phoenix of Vocational Education: Implications for Evaluation," in National Institute of Education, Planning Papers for the Vocational Education Study (NIE,1979), p.195.

[54] Lazerson and Grubb, American Education, p.32; Cohen,pp.101,104,110; See Gallup poll cited in Reform of Secondary Education, a report of the National Commission on the Reform of Secondary Education(New York: McGraw Hill,1973), Appendices A and B.

[55] Grubb, pp. 196-199, 200-202; Barlow, *Unconquerable Page*, pp. 61, 91, 112, 113; Grubb and Lazerson, *American Education*, pp. 17-28.

[56] David K. Cohen and Bella H. Rosenberg, "Functions and Fantasies: Understanding Schools in Capitalist America," *History of Education Quarterly*, Summer, 1977, pp. 123-124.

[57] *Ibid*.

[58] Grubb, p. 210.

[59] Endo, V-32; for reference to the growing literature on implementation of federal programs see Richard F. Elmore, "Organizational Models of Social Program Implementation," *Public Policy*, Vol. 26, No. 3 (Spring, 1978), pp.185-228; Walter Williams and Richard Elmore (eds.) *Social Program Implementation* (New York: Academic Press, 1976); Robert Herriott and Neal Gross (eds.), *The Dynamics of Planned Educational Change* (Berkeley, Calif.: McCutchan Publishing Co., 1979); Jeffrey Pressman and Aaron Wildavsky, *Implementation* (Berkeley, Calif.: University of California Press, 1973); Jerome Murphy, "Title I of ESEA: The Politics of Implementing Federal Education Reform," *Harvard Educational Review*, Vol. 41, No. 1, (February, 1971), pp. 35-63.

[60] Elmore, p. 202.

[61] Don Gentry, "Federal and State Governance of Vocational Education," in National Institute of Education, *Planning Papers for the Vocational Study* (NIE, 1979), pp. 40, 42; *Ibid*., Mike Kirst, "Research Issues for Vocational Education: Compliance and Enforcement of Federal Laws," pp. 56, 66.

[62] Research on this point of looseness and independent behavior within a school system continues to grow. See Karl Weick, "Educational Organizations as Loosely Coupled Systems," *Administrative Science Quarterly*, Vol. 21 (1976), pp. 1-18; Paul Berman and Milbrey McLaughlin, *Federal Programs Supporting Educational Change*, Vol. III, "The Process of Change" and Vol. IV, "Findings in Review" (Santa Monica, Calif.: Rand Corporation, 1975); Richard Weatherly and Michael Lipsky, "Street-Level Bureaucrats and Institutional Innovation: Implementing Special Education Reform," *Harvard Educational Review*, Vol. 47 (May, 1977), pp.171-197.

[63] The literature on the issue is substantial. See John Goodlad, *Looking Behind the Classroom Door* (Worthington, Ohio: Charles Jones Publishing Co., 1974); Louis Smith and Pat Keith, *Anatomy of Educational Innovation* (New York: John Wiley, 1971); Neal Gross, Joseph Giacquinta and Marilyn Bernstein, *Implementing Organizational Innovations* (New York: Basic Books, 1971); Richard

Carlson, Adoption of Educational Innovations (Eugene, Oregon, CASEA, 1965); Charles Silberman, Crisis in the Classroom (New York: Random House, 1971); Larry Cuban, "Determinants of Curriculum Change and Stability," (NIE Curriculum Task Force paper, 1976). The Berman and McLaughlin studies have been cited already.

[64] Eleanor Farrar, John DeSanctis, and David Cohen, "Views from Below: Implementation Research in Education" (Cambridge, Mass. The Huron Institute, 1978), pp. 7-9; See also Pressman and Wildavsky, Implementation; Jerome Murphy, "Title V of ESEA: The Impact of Discretionary Funds in State Education Bureaucracies" in Williams and Elmore, Social Program Implementation.

[65] Prosser and Allen, pp. 442-450; Hawkins, Prosser, Wright, pp. 135-177, 199-212.

[66] Hawkins, Prosser, Wright, pp. 167-168; V.R. Cardozier, "Vocational Education and Federal Control," American School Board Journal, April, 1965, pp. 30-32.

[67] Russell, p. 36.

[68] Ibid., p. 40.

[69] U.S. Department of the Interior, Office of Education, The Program of Studies Bulletin, 1932, No. 17 (Washington: U.S. Government Printing Office,1933), p. 128; Federal Security Agency, Office of Education, Home Economics in Public High Schools, 1938-1939 (Washington: U.S. Government Printing Office, 1941), p. 8.

[70] Program of Studies, p. 159.

[71] Thomas Norton, Education for Work (New York: McGraw-Hill, 1938), p. 49; Home Economics in Public High Schools, p. 3.

[72] Carl Withers (pseudonym James West), Plainville, USA (New York: Columbia University Press, 1945), p. 79.

[73] Keller, p. 106.

[74] Hawkins, Prosser, Wright, pp. 261, 263.

[75] Ibid., p. 262.

[76] Norton, p. 108.

[77] Gladys Branegan, Home Economics Teacher Training Under the Smith-Hughes Act, 1917 to 1927 (New York: Teachers College, 1929), pp. 42-43; Council of State Governments, The Forty-Eight State School Systems (Chicago: Council of State Government, 1949), p. 188.

[78] Russell, p. 72.

[79] Hawkins, Prosser, Wright, p. 198; an article that contains descriptive data on pre-World War I vocational education supervisors performing their tasks in segregated black schools needs to be done for state supervisors under the Smith-Hughes funding. See James Anderson, "Northern Foundations and the Shaping of Southern Black Rural Education, 1902-1935," *History of Education Quarterly*, (Winter, 1978), pp. 371-396.

[80] Hawkins, Prosser, Wright, p. 160; Panel of Consultants report, p. 166.

[81] Russell, p. 34.

[82] Mangum, Rogers, Ellis, Advisory Council and GAO reports have been cited already. Michael Kirst and Joel Berke, *Federal Aid to Education* (Lexington, Mass.: D.C. Heath, 1972).

[83] Advisory Council Report, pp. 123, 157.

[84] Kirst and Berke, p. 359.

[85] GAO report, p. 11.

[86] Rogers, pp. 477, 490.

[87] Leonard Lecht, *Evaluating Vocational Education--Policies and Plans for the 1970s* (New York: Praeger Publishers, 1974), p. 58.

[88] Imber, Farrar, *et.al.* point out the top-heavy goal load that vocational education legislation carries with it. Summerfield focuses upon OE-AVA ties in his study; Kirst, "Research Issues for Vocational Education" concludes that vocational educators are the major obstacle to local and state compliance with the federal mandate; GAO report points to stubborn state officials and understaffed OE bureaucrats.

[89] The Farrar, *et.al.* study of EBCE is one example of how the rephrased question can be approached. The complicated texture of local program responses, once sketched out and filled in, will help answer the question.

Another profitable route to explore has been suggested by Martha Derthick in her study of federally funded New Towns. She points out that the nature of federalism and divided sovereignty puts the federal government in the role of reformer in local affairs. Separated as they must be from local decisionmaking and the inevitable messy compromises that local officials must make daily, federal officials smooth out the wrinkles of diversity.

THE ADOLESCENCE OF VOCATIONAL EDUCATION

Joseph F. Kett

My objective in this paper is to examine the content and contemporary appeal of the ideas of the first generation of vocational educators in America, those who led the drive for federal support of vocational education which culminated in the Smith-Hughes Act of 1917. My hope is that such an examination will help us to understand how a movement which has produced so few positive results could have generated such high expectations.

Even allowing for the salivating rhetoric which usually accompanies major federal initiatives in education, the enthusiasm of the educators, professional reformers, businessmen, social workers, labor leaders, and farm groups which coalesced in the drive for federal support was authentic. It was also contagious. Although there was some disagreement in Congress over the wisdom of federal aid to education and over conflicting House and Senate versions of the bill, the idea of vocational education was not seriously challenged in Congress.[1]

Alongside the high hopes of the architects of vocational education one has to set evidence that vocational graduates have generally failed to derive significant vocational advantages from their educational experience. The architects of the Smith-Hughes Act had advanced vocational education, particularly industrial education, as a cure for poverty, unemployment, and national decline. Yet there is little evidence to suggest that it has accomplished any of these goals, or even an alternative set of goals. Occasional studies have indicated, it is true, that graduates of vocational schools have lower unemployment rates and higher earnings than graduates of comprehensive schools who do not go on to college. It is undoubtedly true that some vocational graduates have been able to locate employment quickly after graduation by returning to employers for whom they had worked in cooperative work-study programs or by utilizing the occupational contacts of vocational teachers.[2] But from 1940 to the present, the most carefully constructed studies have usually indicated that vocational graduates do not enjoy significant advantages. To take only two examples, in 1942 Selden C. Menefee published the results of his study of over 3000 vocational and comprehensive graduates in four major cities. Menefee found that, measured by employment and earnings, the vocational graduates did not, on balance, enjoy any advantages over comprehensive graduates. More recently, Charles Brecher's study of occupational upgrading in five industries in New York City pointed to a similar conclusion. New York City had public vocational high schools for four of the five industries which Brecher studied: apparel manufacture, food services, health services, and construction. In each case the jobs open to vocational graduates were no better than the jobs open to any high school graduates.[3]

As evidence of its failure to live up to expectations has mounted, the fundamental assumptions of vocational education have come under increasing attack from academic economists and educators. From Charles Prosser in the early 1900s to Commissioner Sidney P. Marland, Jr. in the 1970s, vocational educators have argued that increments to the skill of the work force would assuage social problems. To use the language of the 1960s and 1970s, they have been committed to investment in human capital and their ideas have been assailed from the same reason as human capital theory.[4] The problem with human capital theory, many argue, is that by focussing on deficiencies of the work force it neglects those of the workplace. Problems develop not because workers lack skills but because jobs which require skills are in short supply. At present many economists have abandoned human capital theory for some version of the dual market hypothesis. Proponents of the latter argue that some businesses, especially those to which youth and the poor have access, do not desire either a skilled or stable work force. Academic critics of human capital theory have had the initiative during the 1970s and Marland's career education plan, which rests on human capital assumptions, has been subjected to blistering attacks in educational journals.[5]

Despite these attacks, vocational education has continued to attract support. Between 1965 and 1970, for example, federal expenditures for vocational education doubled. In addition, many of the concepts behind the manpower programs of the 1960s and 1970s, which were represented by acronyms such as WIN, JOBS, and MDTA, were foreshadowed by the ideas of vocational educators between 1900 and 1925. There are, to be sure, some differences between manpower programs and traditional vocational education. The former have not been based primarily in public schools nor oriented only toward youth. Yet these differences should not obscure some basic similarities. No less than the proponents of manpower programs, the architects of the Smith-Hughes Act envisioned a subordinate role for the full-time school in vocational education. In addition, the very idea of a "manpower policy" was implicit in their notion that labor was a national resource which could be conserved and rendered more efficient through wise public policy. The commencement of draft deferments for skilled workers coincided with the drive to secure federal support for vocational education in the Smith-Hughes Act and reflected ideas about "human resources" identical to those of vocational reformers.[6] Similarly, the career education launched by Commissioner Marland during the 1970s contains few ideas not to be found in the writings of vocational reformers of the early 1900s.[7]

Not only have some of the ideas of the early vocational reformers been reincarnated during the 1960s and 1970s, but these ideas also had a potent impact on Congress during its deliberations over the Smith-Hughes bill. Prosser was the effective author of the Smith-Hughes bill and the major arguments which he advanced suffused the report of the Commission on National Aid to Vocational Education (1914) and congressional debates over the Smith-Hughes bill. One need not suppose that ideas are self-activating or ignore the presence of interest groups such as vocational teachers, who recognized federal support as a source of expanding professional opportunities for themselves, to see the impact of ideas on the Smith-Hughes bill.[8]

Yet a student of these ideas confronts some immediate obstacles. The first is that the movement to secure federal support included diverse groups whose platforms ranged from vocational education in agriculture to home-economics education and industrial education. The co-sponsors of the bill, Hoke Smith and Dudley Hughes, represented an agricultural state, Georgia, and until recently the lion's share of federal funds has gone to vocational agriculture. Home economics has long attracted the largest number of students. But between 1900 and 1925 industrial educators such as Prosser and David Snedden were the most articulate spokesmen for vocational education. Although industrial education has never attracted large numbers of students, industrial educators dominated the Federal Board for Vocational Education which was established to administer the Smith-Hughes Act.[9]

Yet industrial educators themselves disagreed on a number of issues. The sharpest dispute was whether vocational education should train young people in specific occupational skills or provide them with a vocational orientation and general concepts about industrial processes. This dispute enlisted Prosser, Snedden, and the National Society for the Promotion of Industrial Education (NSPIE) on the side of training in specific skills and John Dewey and other humanitarian Progressives on the side of education in general industrial knowledge. This disagreement led to a related dispute over whether vocational education should be administered separately from general education, with Prosser and Snedden taking the side of separate administration. The conflict was intense and continued long after the Smith-Hughes Act settled the issue for the moment in favor of Snedden and Prosser.[10]

In addition, there were differences between working assumptions and stated beliefs, between assumptions which entered the movement as a byproduct of the practices of trade schools during the late nineteenth and early twentieth centuries and the ideas of leaders like Prosser and Snedden. Prosser and Snedden, for example, specifically rejected the idea that vocational education was a substitute for apprenticeship. Possessed of a broad vision of the objectives of vocational education, they did not want to restrict the latter to those trades where apprenticeship had flourished. Yet they conceded that the assumption that vocational education was a substitute for apprenticeship suffused the movement.[11] Finally, to complicate matters further, during the 1920s Snedden, who had been an enthusiastic supporter of vocational education as Commissioner of Education in Massachusetts between 1909 and 1916 and as first president of the National Society for Vocational Education (previously the NSPIE), became increasingly critical of the direction taken by vocational education.

Yet it would be misleading to push these qualifications too far. For all the diversity of the movement, the ideas which shaped the Smith-Hughes Act were those of Snedden, Prosser, and the NSPIE. For all their disagreements with others, Snedden and Prosser were adept at building a consensus.[12] The particular form of vocational education which they favored placed far more emphasis on training in entry-level occupational skills than the form which was espoused by John Dewey, but their analysis of the need for vocational education did not differ greatly from Dewey's: Few vocational educators would have disagreed with the following propositions:

1. The relationship between school and work had become problematic under modern conditions. Rapid industrial change during the late nineteenth century had pitted the once smooth avenue between the classroom and job. The introduction of machinery was turning young workers into mere tenders of machines and thus was wrecking apprenticeship. Deprived of the opportunity to learn, as apprentices once had, an entire craft, young people who left school between the ages of 14 and 16 blindly stumbled into "dead end" jobs which lacked opportunities for advancement. Without opportunities to learn job skills, they soon became dissatisfied and began to drift from job to job. Some became psychologically attached to drifting. They acquired the mentality of casual laborers and were incapable of sticking to any job for long. The results were industrial unrest, social waste, and individual despair.[13]

2. The solution to these problems lay primarily in public vocational education which would prompt young people to remain longer in school and provide them with the occupational skills needed to advance. This generalization about the beliefs of vocational reformers calls for some qualifications. John Dewey, for example, thought that vocational education would prolong schooling, but not because young people would stay in school longer to acquire entry-level occupational skills. Rather, Dewey thought that the introduction of study of the occupations into the curriculum would enrich education and thus make it more attractive. Prosser and Snedden, in contrast, did not believe that a general prolongation of full-time schooling was either possible or desirable. Snedden ridiculed "cold storage" education, that is, vocational education conducted before one actually started to work. He and Prosser were convinced that effective occupational training could never occur independently of occupational experience.[14]

Yet it would be wrong to make too much of these qualifications. Prosser thought that schools could explain the general principles behind specific occupations and he wrote disdainfully of "pick up" education acquired casually and exclusively on the job. But he thought that the most promising model for vocational education was the part-time continuation school, which allowed young workers to alternate between schools and occupations. The Smith-Hughes Act stipulated that every state had to devote at least one-third of federal funds to part-time schools. Here as elsewhere the act represented a substantial victory for Prosser's views, but he continued to believe that even a one-third allotment was too low. Despite disagreements, then, vocational reformers shared some basic beliefs about the importance of formal education in vocational training.

3. Vocational reformers also believed that vocational education would place the transition from school to work on an efficient and scientific basis. Vocational decisions made on the basis of introspection, peer pressure, or family advice were unlikely, they thought, to be the best decision. As a corollary, many of them believed that an optimum decision could be made for each youth on the basis of psychological testing. The latter would guarantee that round pegs would be placed in round holes. Science made it possible to predict the vocational futures of young people on the basis of interest and aptitude tests and hence to offer advice that was vastly superior to folksy misinformation passed on through the family or occupational grapevine.[15] But vocational guidance was merely one example of a general preference for the efficient and scientific. Prosser kept his distance from vocational guidance (and the Smith-Hughes Act did not allow federal funds to be spent for guidance counsellors), but Prosser thought that in the best of worlds young people would use vocational skills to make steady advancement within a single occupation. Few vocational reformers were

in sympathy with young people inclined to move through occupations like jack rabbits. They disdained job hopping and casual upgrading of skills through instruction on the catch-as-catch can principle. They associated what later economists would call labor mobility with labor turnover and industrial unrest.[16]

4. A corollary of these attitudes and beliefs was that reason rather than custom would shape the attitudes of members of different social classes in the future. Although they recognized the economic and psychological differences among classes, they thought that appeals to reason would overcome many of these differences. Proponents of vocational guidance, for example, were aware that customs played a role in guiding lower-class youths toward dead-end jobs, but they believed that such customs were founded only on ignorance and would yield to reason. Like most Progressives, they had faith in the transforming power of correct information and they espoused the ideal of social cooperation rather than class conflict.[17]

The Appeal of Vocational Education

Many aspects of the intellectual and social experiences of reformers reinforced these beliefs. They lived in an age that was fast discovering the value of statistics and they were able to point to several contemporary studies which documented the evils of dead-end jobs, drifting, tramping, and labor turnover.[18] Their confidence in education reflected not only traditional American faith in schooling but the apparent success of recent experiments with professional education in fields such as engineering, agriculture, and education. The professional school was one of the models for the vocational high school. Reformers claimed that the Smith-Hughes Act would do for secondary education what the Morrill Act had done for higher education.[19] They believed that, as demands for skill were upgraded, some occupations were becoming more like professions. Meyer Bloomfield argued, for example, that under modern conditions businessmen were less entrepreneurs than "commercial engineers" whose concern was not to haggle over prices but to get merchandise as swiftly and cheaply as possible from wholesalers to consumers.[20] Further, just as the expansion of formal education in law and medicine had heightened the prestige of those professions, even trades requiring few skills would gain in dignity (and hence become more attractive to youth) if they were taught in schools.[21] As a corollary, reformers hoped that entry into trades would come to resemble the smooth transition from professional school to professional practice. Such a transition was appealing because it was efficient, marked by a minimum of floundering among occupations. The founders of vocational education understood this point better than most, for they were themselves usually products of professional education.[22] Their faith in education was tied, in turn, to faith in science, for the new professional schools were imbued by a belief that engineering, agriculture, and education were sciences and that professional men systematically trained in these sciences were superior to inventive or inspired amateurs. Finally, their faith in science was one of the factors which disposed them favorably to the ideal of class cooperation. Characteristically, in their influential textbook Vocational Education in a Democracy Prosser and Charles R. Allen dwelled on the increased "social wealth" which resulted from the discovery of ways to control the boll weevil, the potato bug, and black rust.[23]

Supporters of vocational education usually saw themselves as advance agents of modern economic and intellectual forces. They were inclined to radical juxtapositions between the past and present. Once all had been simple; now everything is in turmoil. Once jobs demanded little education; now they call for advanced training. Once the transition from youth to adulthood had been smooth; now it is rough.[24] In their eyes the industrial changes of the 1880s and

1890s had transformed every aspect of American life save education, and now it was education's turn. Yet their thinking was not always as "modern" as they thought. For all their talk about social efficiency and applied science, many of their attitudes derived from values which were entrenched long before the late 19th century.

Their tendency to view job shifting as pathological, for example, had roots in antebellum conduct-of-life books in which the footloose opportunist had never enjoyed a high reputation.[25] True, vocational reformers reversed the traditional relationship between moral qualities and vocations by substituting the idea that a steady job would produce steady morals for the idea that the development of character would immunize youth against the spirit of drifting. But in this case it was the technique rather than the underlying value which was new.

Perhaps the most time-honored of all of their values was that of work itself. So far from emerging as a byproduct of the advanced stages of industrial capitalism, their attitudes toward work were embedded in the tradition of middle-class Protestant America. In this tradition, work was not only a guarantor of success but a form of self-expression, an unveiling of the soul.[26] At the very time when traditional attitudes toward work were coming under attack, vocational reformers sought to revive them. They looked to vocational education and guidance to revitalize work experiences and thereby to dissuade workers from seeking morally perilous substitutes in amusements for the exhilaration that attended dignified labor. The President of M.I.T. identified the problem:

> On every hand we meet with the tragedy of failure or of partial failure and see the dissatisfaction and the misery that is brought about by the placing of square pegs in round holes. In these days men who are to amount to anything must be workers in some field, intellectual or manual. If they are to be happy or moderately happy, they must get their pleasure, or the major

> portion of it, from work. If they must look elsewhere for such pleasure, they are almost inevitably doomed to dissatisfaction if not misery.[27]

Erville Woods described the answer:

> Better vocational adjustment will link the real interests and energies of the spirit with productive tasks instead of allowing them to be turned to merely recreational activities, which in the cramped monotony of industrial communities so often verge on the unsocial and criminal.[28]

The Problem of Vocational Education

In sum, reformers blended traditional and recent ideas into a powerful synthesis. Yet in retrospect there are a number of points at which their thought appears to have been vulnerable to attack and at which, indeed, it did draw criticism from contemporaries. These apparent soft spots involved the relationship between vocational education and (1) industrial demands for skilled labor, (2) unemployment, and (3) occupational mobility. By analyzing their responses to criticisms we can gain a clearer conception of the impulses behind their thought and of the reasons why their ideas seemed so plausible to enlightened contemporaries.

In his classic study of apprenticeship and industrial education Paul Douglas identified the first of these problems. "The extension of machinery," he wrote, "broke the trades up into many parts. Learning a trade was no longer a difficult affair."[29] In The Iron Man in Industry (1922) Arthur Pound made the same observation and concluded that vocational education was a waste of time and money because subdivision of tasks had reduced the need for skilled workers. What was the point in teaching skills if fewer and fewer workers needed them?[30]

One possible answer to Pound was to instruct young people in how work was organized within specific industries, in effect to train them to be managers of work rather than workmen. At the very time when demands for industrial education were on the rise, Frederick W. Taylor, the apostle of scientific management, was urging that managers take over from skilled workmen the scheduling of tasks on the factory floor. For a variety of reasons, however, vocational reformers were reluctant to orient the movement toward the education of managers. One reason for this reluctance was that reformers wanted vocational education to uplift vast numbers of young people, not just the fraction of potential managers. A more important reason lies in the suspicion of white collar work which suffused the movement. Although reformers did not restrict the concept of skill to the attainment of manual dexterity, they usually associated skill with the manual trades. They talked of industrial intelligence, but it was the intelligence of the skilled operative rather than skilled manager that they had in mind.

The reasons behind this suspicion of white collar work are open to speculation, but an attractive hypothesis can be forged from some bits of circumstantial evidence. Gutman has documented the astonishing extent to which foreign-born laborers dominated the working class during the late 19th century. Throughout the second half of the 19th century educators voiced abundant complaints that native American boys seemed to prefer the lowliest clerkships in preference to honest manual labor. These complaints suffused the manual training movement which, as Snedden noted, was the staging ground for many vocational educators. The latter argued that, among other benefits, vocational education would reduce American dependence on foreign labor and would quiet industrial unrest (which contemporaries often blamed on foreign-born agitators in the working force.) In sum, to have emphasized education for managers would have been to compound the problem rather than to provide a solution, for the latter depended on the success of efforts to increase the dignity of the trades and thus to attract native-born youth to manual work.[31]

Having rejected the obvious answers to the argument that subdivision of tasks reduced the need for skilled workers, vocational educators pursued two other approaches to the problem. First, they drew comfort from a number of contemporary signs that industrialization was creating more skilled occupations than it was destroying. The most striking evidence of this tendency was the remarkable growth of correspondence schools between 1890 and 1920.[32] There had been experiments with correspondence schools before 1890, most notably the Chautauqua Literary and Scientific Circle, but Chautauqua's focus had been cultural rather than occupational. The turning point came in 1891 with the establishment of International Correspondence Schools in Scranton. ICS began as an effort to provide Pennsylvania with a supply of trained mine inspectors in the wake of new state mine safety laws. The only available treatises on mine safety had been addressed to the problems of British mines, where conditions were notably different from American mines. In subsequent years ICS expanded its offerings to include fields such as electricity. By all accounts demand for its offerings came mainly from young men between 23 and 27 who found that they lacked the occupational skills to qualify for what were essentially new occupations. By 1900 the cumulative enrollment of ICS was 250,000; by 1910, 1,300,000. In time, of course, correspondence schools would generate much of their own demand through lavish advertising and would expand their offerings to satiate occupational aspirations that were fanciful or Mittyesque (magician, private detective). But between 1890 and 1920 demand was both intense and spontaneous.[33]

The expansion of correspondence schools was not the only sign of the times that convinced vocational reformers that demands for skilled workers were rapidly rising. Many of the vocational schools commenced between 1890 and 1910 as substitutes for apprenticeship in trades like printing soon found themselves responding to local business pressure by the inclusion of courses in electric wiring and electroplating. Similarly, the same period witnessed a growth of schools sponsored directly by corporations, especially by corporations such as General Electric and Westinghouse Electric which were situated in fields marked by burgeoning technology. In these fields the problem with apprenticeship was not that subdivision of tasks had rendered education of any sort meaningless but that apprenticeship could not provide the number of skilled workers needed.[34]

Although the spontaneous growth of correspondence schools and vocational schools provided evidence that demand for skilled workers was rising, vocational reformers recognized that not everyone could expect to find a job which called for complex knowledge. Yet they continued to associate vocational education with increased skill for all workers. In their eyes its dividends were universal. It is easy to dismiss their ideas as wishful thinking, but before one does it is worth looking more closely at the connotations which they gave the word "skill." At times they equated skill with mastery of complicated manual operations and with comprehension of sophisticated mechanical concepts. But they also used skill to signify any type of organized knowledge whose application would yield higher productivity. Snedden and Prosser, for example, often drew their illustrations of the need for a more skilled work force from the ranks of unskilled workers such as night watchmen.[35] In so doing they were not seeking to dazzle their readers with paradoxes but to reaffirm some views which had a wide following among Progressive thinkers during the first two decades of this century. In the writings of Frederick W. Taylor one can find the clearest resolution of their claim that skill was needed to perform apparently unskilled jobs.

The illustration which Taylor most often presented--indeed, it became famous--to show how an apparently unskilled occupation actually demanded skill was the handling of pig-iron. Taylor recognized that in the conventional understanding pig-iron handling did not call for any skill. Handlers merely picked up a piece of iron, walked a few yards, and dropped it on a pile. Taylor seriously argued that an intelligent gorilla could be trained to do the job better than a man. Why, then, talk about the need for skill? Because pig-iron handling was a science, which Taylor followed the President of M.I.T. in defining as "classified or organized knowledge of any kind."[36] As a supervisor at the Bethlehem Steel Company, Taylor had increased the productivity of pig-iron handlers by determining the optimum daily distribution between work and rest periods. Further, Taylor was convinced that some systematic training had to be provided for workers if they were to learn to work in accord with scientific laws. Like Prosser, Taylor argued that occupational training by casual observation of veteran workers in the shop (which Prosser called "pick-up" training) had to give way to conscious efforts to transmit organized rules to each generation of workers, even pig-iron handlers.[37]

This brief excursion into Taylorism not only provides some insights into the distinctive connotations which terms like "skill" and "science" had for the first generation of vocational educators in America but also yields some clues to the appeal of vocational education. Between the publication of Taylor's The Principles of Scientific Management in 1911 and the Smith-Hughes Act Henry Ford had given a practical demonstration at his Highland Park plant of the relationship between increased productivity and higher wages. During World War I, moreover, the massive effort to train workers for war industries provided vocational reformers with evidence that organized vocational instruction was both feasible and effective.

Vocational reformers believed, thus, that virtually any increment to the skill of workers would yield individual and social benefits. In retrospect, their thinking on this issue appears shallow. A half century of antagonism between capital and labor has provided little basis for Taylor's optimistic belief that scientific management would create a harmony of interests in every factory. At the time, however, many saw in Taylor's concepts another illustration of the ways in which science could be a benefactor of society.

Another area in which the thought of the first generation of vocational reformers appears in retrospect to have been especially vulnerable was the relationship between vocational skills and employment. Rising rates of unemployment among teenagers during the last two decades have thrust the issue of unemployment to the forefront of debates over vocational education and manpower training. Critics have launched a twin-pronged attack on vocational education by emphasizing, first, that the structure of business in a capitalistic society contributes far more to unemployment than does the level of skills in the work force and, secondly, that increasing the skills of individual workers will merely force workers into a game of musical chairs. The more skilled workers will bump the less skilled from low-level jobs, thus replenishing the ranks of the unemployed.

The early vocational reformers did not draw these conclusions for a number of reasons. As noted, they thought that the demand for skilled labor was rising and would continue to rise. One can read through their writings without encountering any reference to the "overstocking" of the skilled manual trades. "Overstocking" appeared in their writings only in reference to the unskilled trades.

Yet they did not believe that the issue of unemployment could be put down so simply. At the time when the drive for federal support of vocational education was gaining momentum evidence was mounting that the causes of unemployment were structural rather than personal, that they were rooted primarily in economic forces which expanded and contracted job opportunities for young people and adults alike rather than in the decline of apprenticeship and inadequate training of workers.

Between 1909 and 1925 a number of economists began to describe these forces. In 1909 Sir William Beveridge delivered a seminal report to the Royal Commission on the Poor Laws and Relief of Distress and later expanded it into a book, Unemployment: A Problem of Industry.[38] Studying unemployment among London dockworkers, Beveridge de-emphasized laziness and inadequate training as causes. Instead he emphasized that unemployment resulted from seasonal fluctuations in the demand for labor. He traced the latter to the preference of employers for a "stagnant pool" of laborers, members of which could be called upon from day to day depending on whether ships arrived.

Beveridge had shifted attention from the unemployed to unemployment and from human to structural causes of unemployment. In America similar investigations initiated by the Committee on Women's Work of the Russell Sage Foundation resulted in Mary Van Kleeck's Women in the Bookbinding Trade (1913), Artificial Flower Makers (1913), A Seasonal Industry (1917), and Louise C. Odencrantz, Italian Women in Industry (1919). These studies, all of which underscored seasonal fluctuations in demand as the cause of unemployment, formed the basis for important syntheses published between 1919 and 1925 by Sumner Slichter, Don D. Lascohier, and Herman Feldman.[39]

The implications of the studies of these economists ran counter to the views of the educators. Slichter summarized the basic contention of the economists when he claimed that "it is impossible to understand the transient habits of many workers without knowledge of the industrial conditions, including temporary jobs, out of which these habits in large measure arise."[40] Feldman carried the argument a step farther by insisting that, given the structure of industry, increments in vocational training would not increase the general level of job satisfaction, for the latter depended less on the quality of laborers than on the structure of labor markets.[41]

For several reasons, however, the challenge posed by these economists failed to produce a significant reassessment of the premises behind vocational education. In part, it was a matter of timing. Beveridge's ideas did not make an instantaneous passage across the Atlantic. They received respectful attention from Frederick A. Mills' Contemporary Theories of Unemployment and of Unemployment Relief (1917), but Mills noted that American studies of unemployment lacked "the concreteness, the fullness, and the general applicability characteristic of four or five of the standard English works."[42] Detailed studies of poverty among the working poor appeared earlier in Britain than in America. In Britain, for example, Beveridge's work had been foreshadowed by the social investigations of Charles Booth and the Webbs. As early as 1891 Sidney Webb had described "the fearful daily struggle for bread at the Dock gates."[43] Comparable studies not only developed more slowly in America but tended to lack any uniform theme. American ideas about unemployment were scattered over a number of areas: the evils of private employment agencies, the need for industrial education and vocational guidance, the role of land monopoly and immigration, and the problems of vagrancy and tramping.[44] In such a climate it was easy to assume that vocational education was one of a number of ideas which could play useful roles in assuaging unemployment.

American ideas about unemployment were not only less pointed than British concepts but suffused to a greater extent by moralism. Beveridge had said that casual labor was demoralizing but he dwelled on its economic rather than moral causes. Americans did not ignore the former, but were more emphatic than Beveridge about the latter. Lescohier described casual labor, for example, as "as dangerous as the tentacles of a devilfish," not because casual laborers suffered economic deprivation but because the absence of full-time work led them to develop a taste for leisure:

> Starting out as common laborers, or even as skilled workers, twenty years before, they worked steadily for a time, then became subject to irregular employment, either because of industrial conditions or because of drink or vice or a taste for traveling. Gradually they became more and more irregular in their working and life habits, and crystallized into casuals living from day to day and hand to mouth without self-respect or ambition.[45]

Lescohier's views found echo in the writings of so sophisticated a vocational reformer as Paul Douglas. Douglas wrote:

> The period of idleness between positions, which has been shown to be so large, is another evil factor in the child's industrial life. He is neither at work nor in school; he is industrially adrift. Unemployment for adults is bad enough; for children it is positively vicious. It breaks down habits of industry which are slowly forming, and exposes them to all sorts of positive dangers. Loafing about 'waiting for something to turn up' does not make strong men and women. For the city child, such idleness is especially dangerous. The 'gang spirit' seizes the unemployed boy, and he seeks satisfaction in his group, generally to anti-social ends.[46]

None of this excluded the idea that unemployment had structural causes, but it subtly legitimated the contribution which education could make to the solution of unemployment. If the problem created by casual labor was decay of character rather than loss of wages, the school, especially the vocational school, could play a role, a conclusion drawn by Lescohier and Feldman no less than by Paul Douglas.[47]

The relationship between vocational education and occupational mobility comprised the third vulnerable point in the thought of vocational reformers. Although their resolution of the preceding issues foreshadowed their approach to this one, the latter was extremely complex and merits separate treatment.

The basic assertion of vocational reformers appeared to be simple and straightforward. Young people taught occupational skills in schools would be able to find jobs with ladders of advancement and thus would avoid the occupational slag heap represented by dead-end jobs. Several components of this proposition did not elicit serious dissent. No one doubted that dead-end jobs existed or that school drop-outs were restricted, at least initially, to dead-end jobs. Both the Douglas Report in 1906 and a similar Massachusetts study during the 1920s indicated that young people who had abandoned full-time schooling before the age of 16 usually held low-level jobs. In textile mills they were sweepers, oilers, bobbin boys, and bobbin girls; in shoe factories they were stitchers of simple seams and helpers on nail machines; in candy factories they carried boxes.[48] Everyone agreed, moreover, that such jobs were dead-end in the sense that they did not offer significant employment prospects beyond the teen years. There were bobbin boys and girls but not bobbin men and women.

This line of thought was plausible, but it contained a number of questionable assumptions. First, granting that dead-end jobs did not offer attractive (or any) future employment prospects, was it true that young people who took dead-end jobs could not find attractive work in some other line at a later date? It was possible to view the matter in a different light. So-called dead-end jobs might merely have been temporary youth jobs which did not necessarily foreshadow flat occupational trajectories in maturity. Second, reformers assumed that occupational prospects depended primarily on possession of skills. Even if we accept their argument that demands for skilled labor were on the upswing, this assumption was problematic. What evidence was there that young people from poor homes, even when taught vocational skills, would choose the kind of employment which reformers believed was desirable? Was it not possible that reformers underestimated the impact of social class on occupational choice?

To take up these issues in order, David Snedden was the one vocational educator to reject the concept of dead-end jobs. He did not believe that juvenile work in messenger services or textile mills or department stores sentenced young people to bleak occupational futures. As a corollary, he thought that vocational education would never be very effective for those between the age of 15 and 18. In his view continuation schools were a poor idea because the juveniles in attendance would be unable to see any connection between the principles which they learned in school and the low-level occupations to which their age restricted them. Rather than train juveniles for jobs which they could not hope to enter until they were older, Snedden came to believe that vocational education should concentrate on those between 20 and 30 and make use of full-time residential schools which would draw workers from a wide geographical area and from many sectors of industry.[49]

Snedden, however, was never able to persuade others that what appeared to be dead-end jobs were merely temporary youth jobs. It was difficult to settle the issue on the basis of available evidence. The trouble was that most contemporary studies of youth in the labor market failed to distinguish between the grade and age of school leavers and hence it was impossible to say whether the manifest economic advantages enjoyed by older youth resulted from their additional schooling or merely from the fact that they were older.

Interestingly, the one study (to my knowledge the only one) which distinguished grade and age raised doubts about the economic value of schooling as such. In a study of 800 Iowa schoolboys Ervin E. Lewis demonstrated that there was no correlation between the grade and age of school leavers. Boys of the same age leaving different grades received similar beginning wages. Indeed, Lewis's study indicated that 17-year-olds who left school after the eighth grade actually averaged slightly higher starting wages than 17-year-olds who left either the eleventh or twelfth grades ($8 against $7 and $6.50). But this was an obscure study and its implications had no significant impact on the thought of vocational educators.[50]

In truth the issue of dead-end jobs was a good deal more complex than anyone realized. Studies conducted during the 1930s by August B. Hollingshead, Percy E. Davidson, and H. Dewey Anderson indicated that Snedden was certainly correct when he said that as young people matured they could move from low-level youth jobs to desirable occupations. Davidson and Anderson's study of male workers in San Jose, for example, showed that many who became skilled workers or clerks started out in messenger services. Yet the same studies indicated that some youth jobs were more likely than others to lead to attractive adult occupations, and that social class determined the kind of youth job one could obtain. In Elmtown, Hollingshead observed, for example, those who worked as pin boys in bowling alleys during their teens usually came from the lower social classes and usually had difficulty finding desirable jobs in factories during young manhood. In contrast, middle-class youth were more likely to start as store clerks and then proceed at 18 or 20 into well-paid factory positions.[51]

These studies were, obviously, not available to vocational reformers during the first two decades of the century and, in the absence of compelling empirical evidence, underlying moral values determined the preferences of both sides. Snedden's values, for example, bore a strong resemblance to those of nineteenth-century success ideologists who had urged boys to be willing to start at the bottom of the occupational ladder, never to disdain work as degrading, and to be ready to seize opportunities as they appeared. In effect, success writers had told youth not to expect much from the first job. Implicit in such advice was a certain tolerance of job hopping. As long as a young man was ambitious and self-disciplined, possessed of character, job hopping was a legitimate way to rise in the world. In contrast, Snedden recognized that most vocational reformers were transfixed by an image of an ever expanding domain of "clean" occupations, those marked by an orderly progression from the lower to higher rungs.[52]

Snedden was correct in stating that most trades did not and never had contained such opportunities for smooth progression. But his antagonists were not talking about the past and in some respects not even about the present. As Mayer Bloomfield, one of the founders of the vocational guidance movement, wrote in 1917:

> In connection with these incessant changes in the character of occupations one general rule should be noticed: the finer, higher types of labor are coming to the fore, while the low-grade and debasing types of toil tend to drop out. It is a higher pursuit, one demanding more intelligence and training, to operate a steam shovel than to dig with a hand shovel in a ditch... This has been called the age of specialists. The observation is true enough, but it does not tell the whole story. Men and women are specialized more and more in the finer, more delicate operations, not simply because they are more interesting, but because machines are performing more and more of the rough, crude forms of labor.[53]

In view of the fact that virtually all vocational reformers were schoolmen, and, indeed, representatives of the first generation of professionalized school administrators, it is scarcely surprising that they were attracted by the argument that all occupations were becoming more like the professions.

This dispute over dead-end jobs contained the seeds of a related issue, the effects of social class. As noted, reformers assumed that workers would make rational vocational decisions. In this context "rational" meant a decision to maximize economic gain over the long course. Although rarely subjected to critical scrutiny, this assumption certainly needed it. The assumption resembled the belief, later ridiculed by Reynolds and Shister in their Job Horizons (1949), that workers shopping for jobs behaved like scientists "carefully gathering all the relevant facts and then choosing the job which promises the greatest net advantage."[54] The problem with this belief was that it ignored the role of cultural conditioning. Reynolds and Shister noted that many working-class males believed that jobs were always scarce and that the best policy was to choose the first available job. Business cycles had taught the working class to be pessimistic. Fearing unemployment and privation even in boom times, workers placed little value on locating the job which promised the greatest opportunities for advancement. Instead, they sought jobs which were not physically demanding and rewarded seniority with job security.[55]

What Reynolds and Shister found among working-class males in New Haven during the 1940s unquestionably prevailed earlier in the century. Some vocational reformers recognized that class and ethnicity could condition occupational choice. Louise C. Odencrantz noted, for example, that Italian-American girls restricted their own mobility because they feared the moral implications of answering advertisements or jobs or looking on their own.[56] In 1913 Frank Taussig observed that

> All the associations of nurture and family, all the force of example and imitation, keep a youth in the range of occupations to which his parents belong. In a highly mobile and democratic society like the United States, environment tells less than in older countries. The gifted and alert may feel ambition to rise, but the mass accept the conditions to which they are habituated.[57]

Taussig fully accepted the concept first advanced in 1874 by an English economist, J. E. Cairnes, that competition for jobs in industrial society was not free. The average workman, Cairnes wrote, "finds his power of competition limited for practical purposes to a certain range of occupations, so that, however high the rates of remuneration in those which lie beyond may rise, he is excluded from sharing in them."[58] Cairnes called this the theory of non-competing groups and it exerted a potent influence on the thinking of American economists from Francis Amasa Walker in the 1870s to Taussig. Indeed, it also influenced some vocational reformers, most notably Paul Douglas. Douglas compared American occupational structure to a multi-storied building in which workers who entered on the ground floor without skills were excluded from rising.[59]

Although interest in social stratification was intensifying during the first two decades of the twentieth century, vocational reformers usually paid little attention to these ideas. For them lower-class origins were a disadvantage but not a profound psycho-social deprivation. Douglas was the only vocational reformer to employ the concept of non-competing groups and he stripped it of much of its potency by immediately affirming that vocational training would transform non-competitors into competitors.[60] Thomas Nixon Carver of Harvard expressed the dominant view in his influential _Essays in Social Justice_ (1915):

> Because vocational guidance and vocational education go at the underlying cause, instead of attacking symptoms, they must appeal to every real progressive. By training the rising generation out of those occupations where labor power is over-abundant and into those where it is under-abundant, you not only increase the productivity of every individual so trained, and therefore society at large, which is very important; but you accomplish the still more important result of tending to equalize incomes in different occupations.[61]

As "real progressives" vocational reformers followed Carver rather than Taussig, but it is still reasonable to ask why they were able to slide around this issue so easily. To phrase the question in these terms admittedly makes any kind of answer problematic. It is intrinsically difficult to understand why someone did not believe something. But it is possible to offer a few clues. First, Taussig's argument was not as compelling at the time as it appears to be in retrospect. No body of empirical evidence existed to support his position. Taussig conceded that there were no studies tracing individuals through their occupational careers and little reliable information even about the distribution of wealth in America. For the latter he was forced to extrapolate from Prussian statistics.[62] In addition, Taussig himself did not exclude the possibility that class distinctions would wither under modern conditions. "In modern times and especially in democratic communities," he wrote, "the barriers which separate the groups tend to be broken down, and the passage from one to another becomes more easy."[63] The main reason for this gradual erosion of class barriers, Taussig argued, was the spread of education. Like common school reformers since the 1840s, Taussig thought that public education could break the "thralls of environment" not only by giving poor children the opportunity to learn but also by levelling the airs and pretentions of wealthy children.

This still left the problem of explaining why, despite education, there were so many poor and dispirited workers in America. Taussig and Carver had a ready answer, one which helps to explain why so many American thinkers could express both alarm about the extent of poverty and optimism about its future decline. Although schools opened the way to something better, Taussig wrote:

> during a half century or more, ever fresh streams of immigrants have brought new supplies of common laborers, taking the places left vacant as the children of their predecessors have made their way into the higher groups... These constant new arrivals have kept down the wages of the lowest group, and have accentuated also the lines of social demarcation between this group and others.[64]

Carver had an identical view and concluded that immigration restriction was a necessity. Taussig was less certain. Yet whether or not one favored immigration restriction, the implication was clear. Immigration, a factor essentially external to American business enterprise, explained why a nation with so many free schools had so many poor people. Further, a sharp decline in immigration after the outbreak of World War I suggested to many that the problem might solve itself.[65]

Granting that contemporary economists and vocational reformers were sensitive to poverty and class differences and granting also that their faith in the curative power of education rested on some plausible and widely held beliefs, their thinking about poverty and social class was scarcely profound. One suspects that their knowledge of poverty and the poor came from their reading rather than personal experience. As members of the native-born middle class, they were separated from working-class immigrants by a vast cultural gap, surely a much broader gap than separated Reynolds and Shister from the working-class males whom they studied during the 1940s. Nothing better illustrates the distance between the leaders of the vocational education movement and the working class than the fact that, among all of the arguments used to justify vocational education, the one which would have occurred first to workers was missing. Vocational education would remove juveniles from direct competition with working-class adults for low-level jobs.[66]

The Vocationalizing of Education

The resolution of these challenges by vocational reformers has some implications for what Grubb and Lazerson call the vocationalizing of education. The latter use this term to signify more than the introduction of vocational education.

They view vocational education as one phase of a more general process through which public education came to be bound closely to economic opportunities. At some point during the late nineteenth century, they argue, persistence in school began to be positively correlated with occupational opportunities. Grubb and Lazerson suggest that the dramatic increase in school enrollment after 1890 reflected both the fracturing of skill lines as a result of industrialization and the increasing impersonality of workplaces. Industrialization increased the number of unskilled workers and often replaced craft work with semi-skilled work. Since semi-skilled jobs no longer led to positions requiring greater skill and offering greater rewards, the former became less attractive. In addition, large corporations removed hiring from the shop and delegated it to personnel departments. The upshot was that parents who could afford the opportunity costs prolonged the education of their children in the hope that education would enable children to bypass unskilled and semi-skilled occupations. The value of such prolonged schooling lay not in the occupational skills taught in school but in the school's inculcation of surrogate skills such as literacy and manners, skill more likely to appeal to personnel directors than to shop foremen.[67]

The interpretation advanced by Grubb and Lazerson differs from that of the early vocational reformers at a number of important points. Where Snedden and Prosser argued that the value of schooling lay in the skills taught by schools, Grubb and Lazerson locate the value primarily in the fact of schooling itself. The longer one stayed in school, the better the job one obtained. Whether one studied Latin or carpentry mattered less than whether one stayed in school. The interpretations differ also in their perceptions of the nature of the problem. The early vocational reformers believed that the decline of apprenticeship made it impossible to meet demands for skilled labor. Lazerson and Grubb argue that a declining demand for skilled labor was destroying the kind of skilled positions to which apprenticeship had once led.

Yet these interpretations agree on one point. Both view the response (whether vocational education or prolonged schooling) as a solution to an objective problem. Something was happening in the occupational market for youth that called for new measures. This approach is questionable for several reasons. First, as Grubb and Lazerson concede, our knowledge of objective conditions in the youth labor market during the late nineteenth century leaves much to be desired. Many of the early vocational reformers, for example, certainly exaggerated the extent to which apprenticeship had ever been the normal entry route into occupations, and hence exaggerated the significance of the alleged decline of apprenticeship. Grubb and Lazerson, for their part, may be exaggerating the extent to which industrialization reduced the opportunity for upward mobility by job hopping and casual upgrading of skills through on-the-job training. Davidson and Anderson's study of workers in San Jose during the 1930s indicated that most adult workers had made several job shifts, acquiring new skills as they moved along. In other words, it is at least possible that there has been more continuity between nineteenth- and twentieth-century methods of entering the labor market than historians have been willing to allow.

A second problem with the focus on objective causes of the vocationalizing of education is the tendency to neglect subjective values and cultural norms. As anyone knows, policy decisions have often been based on misperceptions of reality. Those who seek to explain the vocationalizing of education are actually trying to explain a vast range of decisions--to prolong education, to build more secondary schools, to build more vocational schools. Why should we assume that all or even most of these decisions were based on an accurate reading of objective conditions and why, as a corollary, should we then search only for those objective conditions?

The case of the early vocational reformers provides an apt illustration of this point. They certainly had distorted perceptions of the labor market, yet they met with little opposition from contemporaries. In addition, underlying values were at least as important as objective conditions in shaping their ideas. A growing world of dead-end jobs (an objective condition) may have been threatening the economic position of many young people during the late nineteenth century. Yet contemporary complaints about dead-end jobs may have reflected the values of reformers as well as objective conditions. Unless we indulge ourselves in a romantic image of preindustrial America as a land of opportunity for youth we must recognize that dead-end jobs had existed long before the late nineteenth century. They may have been increasing in number, but what is most clear is that such jobs were unacceptable to reformers who assumed that most jobs should be open-ended and who associated job shifting with the world of dead-end labor.

Objective conditions surely played a role in nurturing the values of reformers. The growth of the professions, for example, provided some with an attractive occupational model. More important, although the claims of reformers often went beyond available evidence, they were, nevertheless, plausible claims. That is, they at least fit some pieces of evidence and were not contradicted by any substantial body of existing evidence. Finally, they harmonized with a host of related ideas about the need for national efficiency, the superiority of systematic instruction to casual acquisition of skills, and the value of making the manual trades attractive once again to native-born youth.

The Assimilation of Vocational Education

Although triumphant in shaping the Smith-Hughes Act to their own objectives, figures like Prosser and Snedden were on the periphery of American educational thought during the 1920s. Indeed, Snedden's vision of a massive system of state-supported vocational schools for young adults and of federally-subsidized training for everyone from ticket-takers to door-to-door salesmen increasingly placed him on the periphery of vocational education. From the perspective of educators in the mainstream, the basic problem with the kind of vocational education advocated by Prosser, and by Snedden in an extreme form, was not that it threatened to sully the pure academic curriculum by introducing vocational studies into the school but that it bore at best an ambivalent relationship to the ideal of prolonging education. Neither Prosser, Snedden, nor the NSPIE thought that full-time schools were places in which to teach occupational skills effectively. As noted, their ideal was the part-time school and alternation between school and work. In large measure their hope that vocational education would spur upward mobility was tied to their belief in part-time schooling. As Paul Douglas observed, the poor could not afford the opportunity costs of prolonged full-time schooling and hence would never be able to derive from full-time schools the kind of vocational training needed for mobility. In contrast, most educators who advocated the prolongation of education equated the latter with full-time schooling. The idea of prolonging education was closely related to the belief that occupational choice should not occur during the impressionable years of adolescence, a belief that drew overwhelming support from contemporary psychologists.[68]

Between 1920 and 1940 vocational education underwent some important transformations which led to a decline of the influence of Prosser and the Federal Board for Vocational Education and to the gradual assimilation of vocational education into the mainstream of American education. This transformation had several sources. First, advocacy of part-time schooling ran counter to many existing practices in vocational schools. The Smith-Hughes Act initiated federal support for secondary vocational education, but it did not initiate vocational education. All sorts of vocational and technical high schools had proliferated in response to local needs during the late nineteenth and early twentieth centuries, and most of these were full-time schools which trained young people for a relatively small number of skilled trades in which machinery was undermining apprenticeship. In addition, to gain passage of the Smith-Hughes Act vocational educators had to give state boards of education considerable practical discretion in the spending of funds, and during the 1920s state boards were less committed than the Federal Board to part-time schools. The latter complained that state boards were spending excessive sums on all day-secondary schools.[69] The economic collapse of the 1930s, moreover, tended to drive young people out of jobs and into school, thus frustrating the objective of using schools to supplement training acquired on the job. As events eroded the intellectual position of the Federal Board, emphasis grew on vocational guidance and "industrial arts" programs which did not attempt to convey occupational skills.[70] In 1933 the Federal Board lost its administrative functions; in 1946 it was abolished. Having won the battle in 1917, Prosser lost the war.

The growing importance of the all-day secondary school in vocational education facilitated the latter's assimilation into the mainstream of American public education. With the decline of Prosser's influence, vocational educators could claim that they were no less committed to the prolongation of education than were proponents of general education. Yet there was a price to pay. The more vocational education came to share the goals of general education, the more it came to share the insularity of general education. Whatever might be said of Snedden and Prosser, at least they were keen students of industrial change. With his talk of efficiently trained door-to-door salesmen and street car conductors Snedden often sounded like Gradgrind, but the extreme positions he reached resulted from his refusal to accept easy compromises and from his insistence on following logic wherever it led. During the 1930s, in contrast, vocational education was falling under the control of educators who had little incentive to pay close attention to industry or to stay abreast of recent developments in the social sciences. Their niche within American education was narrow but comfortable. The American Vocational Association, founded in 1926, formed an increasingly strong lobby and, as Cuban has noted, funds continued to flow toward vocational education. From time to time criticisms appeared, but these were quickly turned aside by calls for better implementation of existing programs.[71] Although the reputation of vocational education among economists gradually declined and although academic psychologists became increasingly skeptical of the assumptions behind vocational guidance, legislators took their cues from the rosy picture of vocational education's achievements presented by AVA lobbyists. As late as the 1960s congressional hearings on proposed vocational-education laws were carried on without virtually any recognition of the existence of serious academic criticisms of vocational education or vocational guidance.[72]

NOTES

1. Arthur G. Wirth, Education in the Technological Society: The Vocational-Liberal Studies Controversy in the Early Twentieth Century (Scranton, 1972), chaps. 2-4. Congressional Record, 64 Cong., 2 sess., LIV, part 1, 714-724, 749-754, part 2, 1080-1081.

2. Beatrice G. Reubens, "Vocational Education for All in High School?" in James O'Toole, ed., Work and the Quality of Life in America; Resource Papers for Work in America (Cambridge, Mass., 1974), 313; Carroll W. DeSelle, A Follow-Up Study of the Graduates of San Jose Technical High School (M.S. Thesis, Industrial Arts, Oregon State College, 1940), 9; Teh-Wei Hu, Maw Lin Lee, and Ernest W. Stromsdorfer, "Economic Returns to Vocational and Comprehensive Graduates," VI (winter, 1971), 25-47.

3. Selden C. Menefee, Vocational Training and Employment of Youth (Washington, D.C., 1942); Charles Brecher, Upgrading Blue Collar and Service Workers (foreward by Eli Ginzberg, Baltimore, 1972), 23-25, 36-38, 54, 72-78. See also John T. Grasso, The Contributions of Vocational Education, Training and Work Experience in the Early Career Achievements of Young Men (Ph.D. thesis, Education, Ohio State University, 1975); Harry M. Levin, "A Decade of Policy Developments in Improving Education and Training for Low-Income Populations," in Robert H. Haveman, ed., A Decade of Federal Antipoverty Programs: Achievements, Failures, and Lessons (New York, 1977), 171-174.

4. As early as 1920 an educator, Percy E. Davidson, referred to "such unexampled returns on the capital invested" in education. See Percy E. Davidson, "Equality of Educational Opportunity: The Views of the Economists," School and Society, XII (December 4, 1920), 540.

5. David M. Gordon, Theories of Poverty and Unemployment (Toronto, 1972); Bennett Harrison, "Public Employment and the Theory of the Dual Economy," in Harold L. Sheppard, Bennett Harrison, and William J. Spring, eds., The Political Economy of Public Service Employment (Lexington, Mass., 1972), 44; Sidney P.

Marland, Jr., Career Education: A Proposal for Reform (New York, 1974); T. H. Fitzgerald, "Career Education: An Error Whose Time Has Come," School Review, LXXXII (November, 1973), 91-105.

6. William Haber, et al., Manpower in the United States: Problems and Policies (New York, 1954), viii.

7. Marvin Lazerson and W. Norton Grubb, "Rally 'Round the Workplace: Continuities and Fallacies in Career Education," Harvard Educational Review, XLV (November, 1975), 451-474. It is difficult to see in Marland's ideas a single novel component except the synthetic nature of his proposals.

8. On the relationship between the report of the Commission on National Aid to Vocational Legislation and congressional debates, see Nicholas Ricciardi and Ira W. Kirby, eds., Readings in Vocational Guidance: Trade and Industrial Aspect (New York, 1932), chaps. 2, 3. On the politics of the Smith-Hughes Act, see Dewey W. Grantham, Jr., Hoke Smith and the Politics of the New South (Baton Rouge, 1958), 264-267.

9. On financing see Lloyd E. Blauch, Federal Cooperation in Agricultural Extension Work, Vocational Education and Vocational Rehabilitation (New York, 1935, 1969), 213. On enrollment trends, see Layton S. Hawkins, et al., Development of Vocational Education (Chicago, 1951), 213. Different authorities tend to give different enrollment estimates and, as Cuban has noted, any estimate of enrollments merits some skepticism. Still, the general picture is clear. In 1930, at the end of a steep rise, enrollments in federally-subsidized industrial education classes were approximately 625,000. In 1949, after recovery from a decline during World War II, they stood at 750,000. In the same year enrollment in home economics classes subsidized by the federal government was over 1,300,000, up from 250,000 in 1930. Enrollment in vocational agriculture rose from 200,000 in 1930 to 630,000 in 1949. Between 1949 and 1960 these proportions did not change significantly. With respect to domination of the Federal Board of Vocational Education

by industrial educators, Charles A. Prosser, the Board's first director, had been secretary of the National Society for the Promotion of Industrial Education. Of the six assistant directors, three came from the field of industrial education, one from commercial education, one from agricultural education, and one from home economics; see Hawkins, Development of Vocational Education, 148-55.

10. Wirth, Education in the Technological Society, chaps. 7-9.

11. Fourteenth Annual Report of the Federal Board for Vocational Education, 1930 (Washington, D.C., 1930), 13.

12. As an example of this effort to build a consensus, see the "Report of the Commission on National Aid to Vocational Education," House Docs., 63 Cong., 2 sess., no. 1004, 1913-1914 (two vols. in one, Washington, D.C., 1914), I, 18-34.

13. See, for example, ibid., 18-22; Fourteenth Annual Report of the Federal Board for Vocational Education, 1930, p. 13; Report of the /Massachusetts/ Commission on Industrial and Technical Education, ... April, 1906 (Boston, 1906), 30-98; Douglas, American Apprenticeship and Industrial Education, 100-06; J. Adams Puffer, Vocational Guidance (Chicago, 1913), 35; John I. Sowers, The Boy and His Vocation (Peoria, 1927), 99.

14. Dewey's ideas about vocational education were complex and were suffused by the connotations which the word "work" had for him. By work Dewey meant not merely a job but productive labor which helped one reach one's human potential. For a full discussion of Dewey's ideas see Arthur G. Wirth, "Issues Affecting Education and Work in the Eighties: Efficiency versus Industrial Democracy, A Historical Perspective," Teachers College Record, LXXIX (September, 1977), 55-67. As Wirth notes, Dewey's aspiration was "to redesign industrial and educational institutions so they would be supportive of democratic values." Ibid., 62. See also Charles A. Prosser and Charles R. Allen, Vocational Education in a Democracy (New York, 1925), 240; David Snedden, Vocational Education (New York, 1920), 25.

15. John V. Brennan, "The Schools and Vocational Guidance," in Meyer Bloomfield, ed., Readings in Vocational Guidance (Cambridge, 1924), 79; H.D. Kitson, "Suggestions Toward a Tenable Theory of Vocational Guidance," ibid., 103-108; William Rosengarten, Choosing Your Life Work (2nd ed., New York, 1924), vii.

16. These propositions need some qualification, Paul Douglas cited a large number of studies which partly rested the case for industrial education on the proclivity of young people to shift from one low-level job to another. These anxieties updated traditional fears about the vicious character of the street trades. Douglas himself thought that boys in between jobs were the ones most inclined to join gangs. Prosser associated job stability with social contentment, instability with "parasitism," labor organizers, the I.W.W., and political disturbances. Only during the 1930s did vocational reformers in number begin to come around to the view that job hopping in youth was not a sign of vocational failure. See C. Darl Long, School-Leaving Youth and Employment (Teachers College, Columbia University, Contributions to Education #845, New York, 1941). In recent years there has been a tendency to view job shifting in youth as a prerequisite for success rather than as a mark of failure. See Eli Ginzberg, et al., Occupational Choice: An Approach to the General Theory (New York, 1951), 214. Yet Snedden believed all along that job shifting among all age groups would occur in the normal course of events, with or without industrial education. See Snedden, Vocational Education, 21. At times, Prosser implied the same; see Prosser and Allen, Vocational Education in a Democracy, 63.

17. The major vocational reformers like Prosser had conservative social philosophies. Yet the celebration of honest manual labor, which pervaded the movement, was not without its radical potential. For example, John A. Lapp and Carl H. Mote complained that corporation lawyers were educated at public expense in state universities to help their clients evade the law, while honest workmen had to struggle for knowledge. They added: "We cannot escape the consequences of our idealism or lack of it. As long as the dollar is the determining standard of professional careers, the toiler who labors for meager wages will remain at the foot of the

social ladder...Perhaps industry is not to be held responsible for the cataclysmic peril of individualism run riot, but industrial education will free the workers from the enticements of 'blind alley' jobs, facilitate the realization of an economic democracy and in the end raise the bulwarks of class exploitation." See Lapp and Mote, Learning to Earn: a Plea and a Plan for Vocational Education (intro. by William C. Redfield, Indianapolis, 1915), 74-75.

18. Their thinking about dead-end jobs owed a good deal to the Report of the /Massachusetts/ Commission on Industrial and Technical Education. On contemporary fears of tramping and drifting, see Alice W. Solenberger, One Thousand Homeless Men: A Study of Original Records (New York, 1914); Josiah F. Willard, Tramping with Tramps: Studies and Sketches of Vagabond Life (preface by Andrew D. White, College Park, Maryland, /1899/, 1969).

19. Prosser and Allen wrote: "In the professional field the advance from unorganized or pick up training to organized instruction has already reached a considerable stage of development." Vocational Education in a Democracy, 25.

20. Meyer Bloomfield, "Finding One's Place in Life," in Edwin Markham, ed., Foundation Stones of Success (10 vols., Chicago, 1917), VII, 56.

21. The United States Commissioner of Education noted in 1916 that in order to teach a trade in school the work had to be studied and reduced to principles. As long as there were principles to teach, even the work of sales girls could be elevated to the status of a skilled trade. See Report of the /U.S./ Commissioner of Education, 1916 (Washington, 1916), 173.

22. The first director (Prosser) and most of the original assistant directors of the Federal Board for Vocational Education had been students and/or teachers in professional schools. Prosser had attended a business college and had a Ph.D. from Columbia. Layton S. Hawkins had been a student and later head of the Department of Science and Agriculture at Cortland State Normal School in New York. Lewis H. Carris held an M.A. from Columbia and had risen through the ranks from principal to superintendent to assistant commissioner for

vocational education in New Jersey. Josephine T. Berry was a graduate of Teachers College, Columbia and had been an assistant in the department of household administration at the University of Chicago. She later became head of the department of home economics at a normal school in Illinois. Frederick G. Nichols had been a student and teacher in a business college. John Calvin Wright was a graduate of both a business college and a normal school. The only assistant director to have entered the field of vocational education from the direction of an apprenticeship (as a saw filer) and practice of a manual trade was Charles H. Winslow. See Hawkins, Development of Vocational Education, 148-56.

23. Prosser and Allen, Vocational Education in a Democracy, 28-29.

24.. For an example of the oversimplified juxtapositions of past and present which pervaded the movement, see Prosser and Allen, Vocational Education in a Democracy, 29-31. A related view was that, with the decline of the family as a working unit, families no longer provided vocational models for youth. See Puffer, Vocational Guidance, 18.

25. See, e.g., Albert Barnes, "The Choice of a Profession," in Miscellaneous Essays and Reviews, (2 vols., Boston, 1855), I, 211-12.

26. Daniel T. Rodgers, The Work Ethic in Industrial America, 1850-1920 (Chicago, 1974, 1978), 7-14.

27. Richard C. Maclaurin, "Vocational Guidance," in Bloomfield, Readings in Vocational Guidance, 18.

28. Erville B. Woods, "The Social Waste of Unguided Personal Ability," ibid., 31.

29. Douglas, American Apprenticeship and Industrial Education, 124.

30. Arthur Pound, The Iron Man in Industry (New York, 1922), 200.

31. On the foreign-born dominance of the American working class see Gutman's conference paper. The fear that white collar occupations were overstocked and that the schools were turning out too many would-be clerks and not enough honest workmen was pervasive. See, e.g., *Fourth Annual Report of the [Massachusetts] Bureau of Statistics of Labor* (Boston, 1873), 393-394; *Annual Report of the Board of Education of the State of Connecticut, ...1870* (New Haven, 1870), 40-44. On manual training as the staging ground for many vocational educators see David Snedden, "The Vocational-Education Movement: A Critical Inventory of Policies," in Edwin A. Lee, ed., *Objectives and Problems in Vocational Education* (2nd. ed., New York, 1938), 360. For claims that vocational education would attract native-born youth to the manual trades see *Report of the [Massachusetts] Commission on Industrial and Technical Education,* 46, and *Congressional Record,* 64 Cong., 2 sess., LIV, part 2, 1081.

32. *Report of the Commission on National Aid to Vocational Education*, I, 28; Prosser and Allen, *Vocational Education in a Democracy,* 85.

33. Stuart Chase, "200,000 Students and 4,000,000 Alumni," *Fortune,* VII (June, 1933), 67; *The I.C.S. System of Instruction by Mail and the Results Achieved* (Scranton, 1905), preface.

34. *Twenty-Fifth Annual Report of the [U.S.] Commissioner of Labor, 1910: Industrial Education* (Washington, D.C., 1911), 145 and *passim.*

35. Prosser and Allen, *Vocational Education in a Democracy*, 83.

36. Frederick W. Taylor, "Taylor's Testimony Before the Special House Committee," in Taylor, *Scientific Management: Comprising Shop Management; The Principles of Scientific Management; Testimony Before the Special House Committee* (foreward by Harlow S. Persons, New York, 1947), 41.

37. Taylor, "The Principles of Scientific Management," *ibid*., 40, 59, 114-115. Daniel Bell has described Taylor's system as a search for a social physics. "Once work was scientifically plotted, Taylor felt, there could be no dispute about how hard one should work or the pay one should receive for labor"; see Bell, "Work in the Life of America," in Haber, *Manpower in the United States*, 6. In their *Vocational Education in a Democracy* Prosser and Allen gave a prominent citation to Taylor's works.

38. William H. Beveridge, *Unemployment: A Problem of Industry* (London, 1910).

39. Mary Van Kleeck, *A Seasonal Industry: A Study of the Millinery Trade in New York* (New York, 1917); *Artificial Flower Makers* (New York, 1913); *Women in the Bookbinding Trade* (intro. by Henry Seager, New York, 1913). Louise C. Odencrantz, *Italian Women in Industry: A Study of Conditions in New York City* (New York, [1919], 1977); Sumner Slichter, *The Turnover of Factory Labor* (intro. by John R. Commons, New York, 1919); Don D. Lescohier, *The Labor Market* (New York, 1919); Herman Feldman, *The Regularization of Employment: A Study in the Prevention of Unemployment* (New York, 1925).

40. Lescohier, *The Labor Market*, 265-67, 18.

41. Slichter, *The Turnover of Factory Labor*, 6.

42. Frederick A. Mills, *Contemporary Theories of Unemployment and Unemployment Relief* (#183 in Columbia University Studies in History, Economics and Public Law, New York, 1917), 138.

43. Quoted in *ibid*. 84.

44. *Ibid*., 139.

45. Lescohier, *The Labor Market*, 165.

46. *Ibid*., 108.

47. Ibid., 133; Feldman, The Regularization of Employment, 422.

48. Report of the /Massachusetts7 Commission on Industrial and Technical Education; Maurice B. Hexter, Juvenile Employment and Labor Mobility in the Business Cycle, (Boston, 1927), 13-14.

49. Snedden expressed these ideas in many places. See his Vocational Education, 21-22 and his American High Schools and Vocational Schools in 1960 (New York, 1931), 108-114.

50. Ervin E. Lewis, "Work, Wages, and Schooling in Eight Hundred Iowa Boys in Relation to Problems of Vocational Guidance," in Bloomfield, ed., Readings in Vocational Guidance, 248. Vocational reformers usually rested their case for the cash value of industrial education on the superior earnings of graduates of a small number of technical high schools established during the late nineteenth century. But these schools were actually preparatory schools for engineering colleges and attracted children of upper-income families. One study which tended to support Lewis's argument was Edward L. Thorndike et al., The Prediction of Vocational Success (New York, 1934). In this longitudinal study of over 2000 New York City school children Thorndike noted that such factors as academic performance in school had no more than a very weak correlation with vocational success, but that a strong correlation existed between physical size at age 14 and vocational success. This may have been a reflection of the disposition of employers to prefer mature workers, for physical size could be used to make fast judgments about maturity. See ibid., 111.

51. August B. Hollingshead, Elmtown's Youth: The Impact of Social Class on Adolescents (New York, 1949), 363-374; Percy E. Davidson and H. Dewey Anderson, Occupational Mobility in an American Community (Stanford, 1937), 103-113.

52. Snedden, "The Vocational-Education Movement: A Critical Inventory of Policies," 385.

53. Bloomfield, "Finding One's Place in Life," 42-43.

54. Lloyd G. Reynolds and Joseph Shister, *Job Horizons* (New York, 1949), 80.

55. *Ibid*., 62-63, 85-88. Hollingshead's *Elmtown's Youth: The Impact of Social Class on Adolescents* foreshadowed aspects of the critique of this theory put forward by Reynolds and Shister, for Hollingshead showed how social class conditioned occupational expectations as well as outcomes. A later study substantially supporting Reynolds and Shister is Charles A. Meyers and George P. Schultz, *The Dynamics of a Labor Market* (New York, 1951), 73-4. In recent years a number of historians have explored the relationship between ethnicity and occupation. See, for example, Josef J. Barton, *Peasants and Strangers: Italians, Rumanians, and Slovaks in an American City, 1890-1950* (Cambridge, 1975); Virginia Yans-McLaughlin, *Family and Community: Italian Immigrants in Buffalo, 1880-1930* (Ithaca, 1973): Thomas Kessner, *The Golden Door: Italian and Jewish Immigrant Mobility in New York City, 1880-1915* (New York, 1977).

56. Odencrantz, *Italian Women in Industry*, 272-275, 280-284.

57. Frank W. Taussig, *Principles of Economics* (rev. ed., New York, 1915), II, 130.

58. J. E. Cairnes, *Some Leading Principles of Political Economy, Newly Expounded* (New York, 1874), 68.

59. Douglas, *American Apprenticeship and Industrial Education*, 266-267.

60. *Ibid*., 266.

61. Thomas N. Carver, *Essays in Social Justice* (Cambridge, 1915), 364.

62. Taussig, *Principles of Economics*, II, 237-238.

63. Ibid., 138.

64. Ibid., 139.

65. The Report of the Committee on National Aid to Vocational Education predicted (p. 18) that America would not be able in the future to rely on a limitless supply of foreign laborers. Total immigration in 1914 was 1,218,480; in 1915, 326,000; in 1916, 298,826. In 1918 it was just over 100,000. See U.S. Bureau of the Census, Historical Statistics of the United States, Colonial Times to 1957 (Washington, 1975), part I, 105.

66. Taussig mentioned the argument, but it was not among those used by Commission on National Aid to Vocational Education.

67. Grubb and Lazerson, conference paper.

68. Joseph F. Kett, Rites of Passage: Adolescence in America, 1790-Present (New York, 1977), chap. 8.

69. Fourteenth Annual Report of the Federal Board for Vocational Education, 1930, 10.

70. Ibid., 14.

71. An example of this tendency to deflect criticism by calling for better vocational programs can be found in Albert Westefeld, Getting Started: Urban Youth in the Labor Market (New York, 1943, 1971), 146. In response to Selden C. Menefee's negative assessment of vocational education (which had the distinction of being the first serious study of the effects of vocational education), Westefeld concluded that "the most thorough and specific sorts of training appear to be the most effective." He based this on Menefee's data, yet nothing Menefee said really supported this conclusion.

72. Vocational Education Act of 1963: Hearings Before the General Subcommittee on Education of the Committee on Education and Labor, House of Representatives, Eighty-Eighth Congress, First Session, Title V-A of H.R. 3000

and H.R. 4955 (Washington, D.C. 1963); Vocational Education Amendments of 1968: Hearings Before the General Subcommittee on Education of the Committee on Education and Labor, House of Representatives, Ninetieth Congress, Second Session, on H.R. 16460 (Washington, D.C., 1968).

EDUCATION AND THE LABOR MARKET: RECYCLING THE YOUTH PROBLEM*

W. Norton Grubb

Marvin Lazerson

For much of the post-World War II period schooling enjoyed sustained growth. Expanding enrollments, increasing salaries, and booming expenditures all stimulated the size of the educational sector. Economic expansion meant that there was no problem absorbing the higher numbers of college graduates. Against this background, the contractions of the 1970s and early 1980s seem especially severe. Declining enrollments, taxpayer revolts forcing cutbacks in spending, and problems placing college graduates in "suitable" jobs have reversed the experiences of the 50s and 60s. While demographic shifts are partly to blame, the abysmal economic conditions of the 70s--high rates of unemployment, high rates of inflation, and low growth rates--have been more potent forces in the tribulations of schooling.

In the frantic search to improve macroeconomic conditions, the relationship between schooling and work has come under investigation. One concern has emphasized declining economic returns to schooling, especially to college. The implication that many students are "over-educated" relative to the ability of the labor market to absorb them and that we should reduce the schooling most individuals receive portend an end to the growth of education. A second major issue involves the charge that schooling works not by instilling real skills but serves merely as a "credential" or a "signal", a process of selection which may be inefficient or inequitable. Third, a host of proposals aimed at reducing youth unemployment by improving the transition from schooling to work implicitly assume that conventional schooling fails to prepare adolescents for employment. All of these issues are linked by the charge of the "irrelevance" of schools, suggesting that reforms are necessary to restore some semblance of rationality to the relationship between schooling and work.

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While much of the recent discussion implies that these are new problems, in fact the dilemmas of youth and of preparing them for employment have been a constant feature of public debate. The terms of that debate were set at the turn of the century, whem employment and schooling became inextricably linked. Since then school-based and educational reforms have been proposed whenever the behavior of youth has received attention. Just as consistently the reforms have proven unsatisfactory, and then another cycle of concern over shiftless youth, the sorry state of the work ethic, and the anti-social behavior of minority and working-class adolescents begins.[2] The recurrence of the youth problem suggests either that the "resolutions" of the past have resolved nothing, or that the same kinds of problems have been generated anew in different periods.

To assess which of these is true, we need to understand why the youth problem arises, what the nature of the reforms has been, how the reforms have resolved the underlying problems, and the limits of the solutions offered. We will have to understand how contradictory forces within the state--particularly the pressure to expand individual opportunity, to eliminate inequalities and the privileges of class, race, and sex, versus the pressure to retain privileges and legitimate the inequalities embedded in public programs--have affected policies towards youth. We may then be able to understand the complexities of the relationship between schooling and work, both in their historical manifestations and in current issues.

This paper is an initial exploration of these questions. We first examine the dimensions of the current youth problem, particularly the ways these problems are treated as educational issues, and we investigate the limits of treating labor market problems as educational problems. Second, we speculate about which changes in labor markets at the turn of the century affected youth employment and schooling as preparation for employment. Third, we examine the nature and consequences of the vocationalization of American education, a process which established the importance of schooling in the occupational hierarchy. Finally, we outline out an agenda for research which takes us beyond the tentative hypotheses argued here.

This essay represents an effort to address some issues we consider unresolved, and to suggest some hypotheses which seem plausible in the light of what we do know. Implicitly, we are also groping towards a reformulation of several concepts, including vocationalism, which in the past we have too narrowly construed as vocational education, and human capital theory, which has dominated, much of the current research on schooling and earnings. Necessarily, much of what we present is still at the stage of hypothesis, in need of empirical investigation and theoretical refinement. Again because of the preliminary stage of our analysis, we ignore some of the variations which so preoccupy historians--variations across regions of the country, by ethnicity, by race, class, and sex--although we do believe that our analysis can encompass these kinds of cross-sectional differences. We have focused here on outlining the major trends over time, on the assumption that these trends must be understood before the variations within them are investigated.

I. The Educational Solution to "Youth Problems"

To many commentators, American youth are in a terrible state. Pregnancy and veneral disease, alcohol and drug abuse, juvenile crime, illiteracy, unemployment and disaffection from the work place--the litany of problems is endless. To a great extent these concerns are rooted in real problems: Youth unemployment has been high and increasing, reaching a post-war high of 19.9% in 1975, and unemployment rates for black youth have been around 40%. While the long-run effects of teenage unemployment are uncertain, for non-whites especially the lack of work has immediate consequences--in terms of income--which continue into adulthood in lower earnings and higher unemployment.[3] Rates of juvenile delinquency are climbing, most alarmingly for crimes of violence and for younger adolescents. Teenage pregnancy represents a critical issue, with serious consequences for both mother and child in terms of schooling completed, economic resources, and health problems. Other forms of pathology among adolescents--suicide, drug abuse, drinking, running away--have been taken as indicators of serious problems, though the evidence in these cases is more difficult to interpret.

But while attention to youth is partly a response to real issues, especially problems whose consequences endure into adulthood, we cannot explain the intensity of feelings about youth simply by the reality of these problems, or by a concern for the "waste of human resources" they represent. Many "youth problems", like unemployment for whites, diminish with age; others, like juvenile delinquency, tend to be concentrated among lower-class and minority youth, precisely the groups who have been most shabbily treated and who have been the easiest to ignore in public policies. Those adolescents who represent a quiet "waste of human resources"--who fail in school, drop out, or become alienated without demanding any social response--are not usually the target of public programs or private outrage. To some extent, then, the "youth problem" is a set of adult responses to various forms of "acting out" among teenagers, non-criminal behavior which is forbidden only to adolescents--disobedience, status offenses, overt sexuality (especially for women), rowdiness. We also need to recognize the hostility latent in those adult reactions: the idleness of youth, the self-absorption of a period which is a moratorium and a time of decision-making, the sexual explorations of adolescents, the indulgences of "youth culture", all arouse the hostility as well as the envy of adults.[4]

The "youth policy" which has developed to cope with these problems has been unplanned, but it has nonetheless been consistent: it has largely involved the simultaneous extension of schooling and the elaboration of school and non-school training programs. The schooling and training resolution has prevented youth either from flooding a labor market unable to absorb them or from remaining unattached to the labor force (or to a family) and therefore potential troublemakers. But the elaboration of educational programs cannot be rationalized on the grounds that they merely warehouse young people. They have thus been justified by the values they impart, the skills they teach, and their advantages in terms of earnings and occupational status. If we understand the "youth problem" as a dual problem--in part a set of responses to the reality of unemployment, juvenile crime, and other concrete problems, and in part a response to "acting out" imbued with considerable hostility towards youth--then we can understand the appropriateness of educational solutions to "youth problems". Educational programs which prepare some youth for their adult roles represent a rational response to some "real" dimensions of the youth problem; they may also be effective in giving young people a sense of purpose, in providing them with alternatives to acting out, and in giving them the economic and social status necessary to adult roles. But even if programs are ineffective in preparing students for occupations, they may still be appropriate if they merely occupy students and keep them off the streets and out of trouble. We can then understand the two functions of schooling--training, or preparing students for the labor market, and warehousing, or keeping them out of the labor market--as responses to different aspects of the "youth problem".

The dual role of schooling has been apparent for decades. A broad spectrum of educational programs--including the G. I. Bill, vocational education programs, two year colleges, and expanding college enrollment during the 1960s--has kept youth out of the labor market, reducing what would otherwise have been politically unacceptable increases in unemployment.[5] More recently, however, questions about training and warehousing have become prominent, particularly as the rates and levels of youth unemployment reached historic highs. But youth have always been victims of high unemployment; their plight in the 1970s represented a deterioration in a chronic problem rather than a new phenomenon.[6] The persistence of high unemployment for youth implies that conventional macroeconomic policies are inadequate to resolve the youth unemployment problem, and suggests that the youth labor market is structurally different from the rest of the labor market.

The labor markets for youth and adults may differ on at least four dimensions--knowledge of the job market, educational attainments, level of racial discrimination, and employer hiring preferences. While there is some evidence that lack of knowledge increases unemployment, the evidence is not substantial; after initial entry the information problems of youth appear similar to those of adults. The impact of low educational attainments appears stronger: as educational requirements for most occupations have increased, teenagers with limited schooling are prevented from being considered for an ever-increasing proportion of jobs. There is, of course, a large racial component to youth unemployment, although again this parallels discrimination against non-white adults: unemployment rates tend to be twice as high for black youth as for whites, and about 50% higher for Hispanics.[7]

But the critical difference between the labor markets which adults and youth face is that employers prefer to hire older workers, and for most jobs--especially jobs with career potential--they will not seriously consider teenagers except in periods of labor shortage.[8] The reasons vary: some employers cite child labor laws and minimum wage standards as barriers to hiring young people, though the evidence is far from clear.[9] More commonly, employers complain that young workers are more unstable than adults. In an economy with low levels of unemployment such objections might not prevent young people from being hired. But in an economy with chronically high levels of unemployment, where it is usually possible to hire a slightly older worker, there is no reason for employers to run the risks of hiring younger workers and the employment rates of adolescents suffer as a result.

The complex problem of youth unemployment, then, involves a variety of labor market conditions and personal factors, often in ways which cannot be separated. Yet the proposals and programs which have been offered follow a predictable pattern: rather than dealing with the labor market aspects of youth unemployment, they constitute another set of educational solutions. Attention has focused on the "transition from school to work", which in turn is viewed as a problem of insufficient information about work and of school curricula irrelevant to work. The result has been the expansion of vocational education throughout the 1960s and 1970s, the development of career education, the proliferation of work-experience programs, and the expansion of vocational two-year colleges.[10] Educational resolutions to youth employment problems have also moved outside the schools. The manpower programs of the 1960s have been revived as "employment and training programs", most of them contained in the Comprehensive Employment and Training Act of 1973 (CETA) and in the Youth Employment and Demonstration Projects Act (YEDPA), passed in 1977 specifically in response to the high rates of unemployment among youth.

These programs encompass a variety of activities, but here again the specific programs for youth by and large focus on training and warehousing efforts rather than direct employment.[11] There is little evidence that the training programs work much better than the school programs, perhaps because the task of doing in short periods of time what the schools have failed to do over ten years or more is well-nigh impossible.[12] But if the training function of CETA and YEDPA has been less than overwhelming, their warehousing function appears to work quite well. Simply through the levels of their enrollments, these programs reduced the youth unemployment rate in 1976 by about 3.9 percentage points, compared to what it might have been in the absence of such programs.[13] If nothing else, employment and training programs have provided places for thousands of young people, no longer in school and yet with no "adult" positions.

In reinforcing educational solutions during the 1970s, the problems of youth rooted in labor markets--in racial discrimination, in discrimination against younger workers, in the inflation of educational requirements, and in the abysmal quality of jobs available to young people--have been completely ignored. The emphasis on education and training as the basic approach to youth issues essentially reflects political and ideological resistance to the incursions on the prerogatives of "private" labor markets and "private" firms, and it reflects adult ambivalence about whether the problems youth face are "real" or simply a form of acting out. We will argue in the next section that this form of youth policy emerged earlier in the twentieth century and became institutionalized; its successes then have made it extremely difficult to search for any real alternatives. The result has been to narrow the range of possible options in dealing with the problems of youth.

II. Labor Markets and the Schools: The Progressive Resolution

On one level, the changing relationship between youth, work and education in the early twentieth century can be simply put: teenagers, especially those between the ages of 13 and 16, withdrew from the labor market and went to school. The gross statistics are striking. The percentage of 14-18 year old males at work dropped from 43% to 23% between 1900 and 1920, and fell further to 12% by 1930. For females, the decline was from 18% to 11% to 5%. High school enrollment of 14-17 year olds between 1900 and 1930 climbed from almost 8% to over 44%. In 1900, 6.4% of all 17 year olds were high school graduates; the figures rose to 16.8% in 1920 and 29.0% in 1930.[14] Evidently, not all youth left the labor market and went to school, and school attendance varied by region, among ethnic and racial groups, and between males and females. Class and family income continued their powerful influence over the decision to stay in school or to work. But the trend was clear and powerful--between 1900 and 1930 the regional, ethnic, racial, sexual and class differences in length of school attendance narrowed considerably, and by the late 1920s 13-16 year olds tended to be out of the labor market and in school.[15]

The reasons why youth began to withdraw from the labor market and to stay in school have never been adequately explained. The traditional argument that the increased demand for technical skills required more schooling has proved insufficient, since skill levels may not have increased at the turn of the century.[16] The more rigorous enforcement of child labor and compulsory attendance legislation undoubtedly played some role in making it more difficult for young teenagers to find work, by raising the nuisances to employers in hiring young people.[17] Public concern about the immorality and potential delinquency of youth on the street mushroomed, providing a basis for institutionalizing young people in adult-controlled settings.[18] New cultural values coalesced around the developing concept of adolescence as a time to be sheltered in preparation for adult responsibilities, increasing pressure to keep teenagers in school and away from the adult world.[19] Since school attendance had always been closely associated with income and class, higher living standards allowed some youth to stay in school longer.[20] Changes in schools themselves--the introduction of progressive pedagogy and modifications in curriculum--might have made schooling interesting enough so that those on the borderline opted to stay in school. There may also have been a kind of snowballing effect, apparent by the 1920s, with youth staying in school in part because their friends were there.

The merit of these explanations obviously varies; taken together, they do suggest a rationale for lengthening school attendance. But they also neglect a fundamental component of withdrawal from labor markets and continuation in school: changes in the labor market itself conditioned a new relationship between schooling and work which both pushed youth out of the market and pulled them into school, and which transformed the role of schooling in the occupational structure. Two issues seem especially important. The first has to do with the nature of the youth labor market: what kinds of jobs were available to young people, what difference did entering the labor force at different ages make, how much were skills learned on the job the basis for advancement? The second set of issues involves the relationship of schooling to occupational success: how much did schooling contribute to future adult achievement?

We can only offer speculative answers to these questions; the data are not readily available, and the connections between schooling and work are too poorly understood to be definitive. What follows is a series of hypotheses, to suggest how we might begin to understand the changed relationship between school and work in the first decades of the twentieth century, and to speculate about the impact of that change on the schools and on youth. In brief, we hypothesize that a fundamental transformation of the relationship between schooling and work occurred during the progressive era, largely in response to changes in labor markets. We refer to this transformation as vocationalism, which made preparation for a place in the occupational structure the raison d'etre of public education. The processes underlying the vocationalization of schooling were not fully implemented until after World War II, and they were not the only developments to affect schooling and work in the twentieth century. But between 1900 and 1930 the basic elements of change were established, and they have shaped our educational system and our social responses to the problems of youth ever since.

Much of our argument about the twentieth century is based on assumptions about nineteenth century youth labor markets--how they differed from twentieth century markets and how they changed over time. The evidence on the nineteenth century is exceedingly sketchy, however. It appears that compared to twentieth century adolescents, nineteenth century youth were more actively involved in labor markets, less formally constrained by schooling than by the economics of their households; the link to adult economic roles was through the family, not the school. Working class and poor youth left school early, probably whenever they could find employment as unskilled laborers or, for girls, as domestic servants. Their work was irregular and insecure, and young people moved frequently among jobs, unemployment, and schooling. Going to school was common but not universal; time spent in the work force before marriage was much longer than it is now, probably ten to twenty years compared to three to five years in 1970. The contribution of young people to their family's income was often substantial and necessary. In addition to the economic necessity of working, to some extent early work experience was valuable as a means of upward mobility. Even recognizing how transient and limited in terms of advancement much work for youth was the existence of skilled craftwork and high levels of self-employment still suggest that, at least for white males, work was arranged in a hierarchy of skills. What young people learned on the job could be exceedingly valuable to occupational advancement; it could lead to artisanship or self-employment, in ways that became much less possible in the twentieth century. The postponement of work for a few years--a basic tenet of reformers during the progressive era--had little justification at mid-century: staying in school for a few additional years probably had limited and uncertain economic payoffs,[22] and conversely leaving school early did not have the kind of detrimental impact on subsequent careers it came to have.

During the last half of the nineteenth century a number of trends began to change the relationship between schooling and employment. One was the fracturing of vertical skill ladders. Large-scale manufacturing displaced small-scale craft production, as the routinization of production led to specialization of labor and de-skilling, and as craftsmen were replaced by machines and machine operatives. The chances for artisans to start their own shops began to decline. The traditional argument that work would lead to self-employment in a trade became less and less meaningful as the artisan shop became an anachronism or a small, specialized exception within manufacturing. In the post-Civil War era the worlds of wage earners and businessmen separated: it became less possible to move upward from the status of worker to that of owner and manager. This did not mean that all jobs suffered skill degradation or that all opportunities to learn skills on the job and to enter the growing middle class were eliminated. Rather, many jobs suffered skill diminution and became mechanized versions of the work of nineteenth century "laborers", while a minority of skilled positions developed a new aristocracy of manual workers performing the most skilled tasks and supervisory activities.[23] Recognizing that such trends were well under way by mid-century, the general replacement of craft work by semi-skilled positions, the shortening of occupational ladders, and the increasing difficulty of becoming an independent artisan or owner from unskilled positions meant early entry into unskilled positions made less economic sense. As families were able to do so, they tried to delay their teenage children's entry into the labor market and to keep them in school, where the chance was greater that they could gain access to an occupation with some kind of career and some progression in terms of earnings and status.

A second barrier to mobility among jobs of different skill levels and earnings, which also influenced the value of schooling, emerged more fully after 1900: the growth of large corporations and the development of rationalized hiring policies. The development of large corporations meant that the outlines of the "dual economy" began to emerge: in place of an economy with a large number of relatively small firms, many sectors came to be dominated by a few corporate giants with a number of small, peripheral, and generally weak firms still in existence.[24] Within the corporations, an emphasis on stabilizing the workforce and the importance of "scientific management", especially after World War I, led to the development of personnel policies which dictated the structuring of jobs and advancement among positions. One consequence of the development of internal labor markets--patterns of upward mobility within a firm, rather than among jobs in different firms--was that an individual's initial job became a more important determinant of occupational mobility.[25] In order to obtain most jobs in larger firms--jobs which tended to pay more and which had the prospect of more stability and career mobility than those in small firms--it was first necessary to gain access to the internal labor market of a large firm. A second consequence of scientific management was that access increasingly required formal schooling, as personnel policies began to rationalize hiring. The removal of hiring from the foreman or shop level to the personnel department separated employee selection from the people most experienced in actual job requirements, substituting surrogate "skills"--primarily appearance and literacy--for job-related skills. Personalistic, family- and kin-oriented hiring practices became less important--though they by no means disappeared--as formal criteria gained greater acceptance.[26]

Among the most important of the formal criteria was educational attainment. The rationality of using school attainment as a hiring credential has been widely debated, but it does have some obvious advantages: school attainment was unambiguous, easily verifiable, and cheap to use; it testified to a certain level of persistence and stability; with schooling rationalized as a meritocratic institution, education could be justified as a reflection of ability even if it proved not to be.[27] While the precise reasons for the utilization of schooling as a credential remain elusive, its adoption as part of rationalized hiring procedures, together with the development of internal labor markets which put a premium on employment within large firms, meant that leaving school early in favor of immediate employment was more likely to lead to a less stable, lower-paying job in a peripheral firm, and made it difficult to gain access to the better positions in larger firms. Of course, these changes probably occurred at different rates in different sectors and different regions; they may also have occurred later than some of the other changes we describe, since personnel departments existed only in the largest firms well into the 1920s, and most young people continued to get first jobs through familial and peer group contacts. But if our hypotheses are correct, then the restructuring of labor markets as large corporations developed and rationalized their hiring procedures reinforced the economic value of staying in school.

The fracturing of skill ladders, the development of internal labor markets, and the rationalization of hiring procedures did not necessarily reduce the number of jobs available to youth who left the high school before graduating; rather these changes affected the kinds of jobs which drop-outs could get and the prospects for mobility from unskilled jobs. Technological developments may also have driven youth out of the labor market, though it is difficult to be sure.[28]

While jobs like messenger boy and department store cash runner, typically filled by young people, disappeared with the telephone and cash register, the development of a pool of unskilled jobs in what has come to be known as the secondary labor market created jobs which both unskilled youth and adults could do. While there is some evidence of an increased substitution of youth for adult workers within the pool of unskilled jobs,[29] in many firms employers replaced young people with immigrants--older, with family responsibilities, and more stable--who were perceived as more suitable for the technologies coming to dominate large industries.[30] We suspect that discrimination against young people purely on the basis of age may have begun around the turn of the century, for much the same reasons that such discrimination against teenagers exists today,[31] creating the "wasted years syndrome" of time between 14 and 16 when only "dead-end" jobs were available and adding to the economic pressures to stay in school. The emergence of age discrimination after the turn of the century is still conjecture which needs to be investigated, but it does indicate why, in an economy which generated so many unskilled jobs, young people dropping out of school found it so difficult to find decent employment.

Two other changes in the pattern of occupations enhanced the reasons for staying in school rather than entering the labor force. The first involved the expansion of managerial and office positions in the first decades of the twentieth century.[32] Again, why schooling became such an essential mechanism of access to these jobs remains unclear, but we suspect that many of the skills required in office positions--literacy, computational skills, bookkeeping and accounting, as well as the behavioral norms congruent with office and managerial positions--were effectively taught in school. Like teaching, the new office positions were highly stratified by sex: secretaries, clerks, and bookkeepers were women and placed in positions which were low-paid, while men became managers and accountants with relatively higher pay and status. But even as sex-based stratification separated the experiences of men and women, schooling continued to given an advantage to both men and women who went into white collar positions, relative to what they would have earned in more traditional working-class occupations.[33]

A final development which may have changed the relationship between schooling and occupations involved professionals. Particularly for women, the rapid expansion of semi-professions (like teaching and nursing) which had barely existed means that longer school attendance opened up new options. But overall the expansion per se of professional occupations was not particularly important: between 1900 and 1920 the proportion of the labor force in professional and technical professions increased only from 4.25% to 5.40%.[34]. More significant were the increased visibility and status of professionals during the progressive era, their higher incomes relative to other occupations, and the fact that increased schooling became necessary for access to professional positions. During the progressive period the conception of a professional as an individual with special powers because of his (rarely her) special knowledge--and thus long years of schooling--became established, so that subsequent efforts to professionalize occupations have all involved increasing schooling requirements as an assured means of attaining greater status, higher incomes, greater legitimacy and control.[35] At the same time that other developments were reinforcing schooling as a mechanism of access to specific occupations, the efforts to professionalize by increasing school requirements provided an additional incentive to stay in school, as well as a potent symbol of the social status and economic power which could be gained through education.

In summation, these five changes--the shattering of mobility through on-the-job skill acquisition because of the deskilling of craft work, the creation of barriers to labor mobility through the development of internal labor markets and rationalized hiring procedures which relied on schooling credentials, the growth of discrimination against youth, the expansion of office and managerial positions for which skills and behavior could be readily acquired in schools, and changes in the nature of professionalism--were at the core of the changing relationship between schooling and work in the early twentieth century. Of course, the pace of change varied: the changes in the leading sectors of the economy left some regions relatively less touched, and the changes obviously did not eliminate all small firms or all self-employment. In many communities--in the South, in farm areas, on the frontier--a few extra years in school probably made little difference to adult status. Where there were changes, the extent to which young people recognized changes, and acted on this recognition, is difficult to know. Evidently the ability to act on the recognition of changes in the labor market was always constrained by social class, race, and sex, since postponing entry into the labor market was a luxury that many could not afford, and since discrimination within labor markets limited the advantages to schooling. Those who entered and stayed in the secondary labor market received little from their schooling. So did most blacks, because decent occupations were barred to them. For girls, the value of schooling as a means of access to teaching and other semi-professions and clerical work was circumscribed by discrimination in a sex-segregated labor market. Finally, non-economic reasons governed educational decisions: among some groups schooling was an end in itself, since individuals gained status from schooling even where economic returns were uncertain. Ex-slaves flocked to schools for a host of non-economic as well as economic reasons, although by the early 1900s, economic rationales were probably playing an important role in their school decisions despite the discrimination they faced.

But despite the difficulties in ascribing schooling behavior to perceived changes in labor markets, there is some circumstantial evidence supporting this link. It seems likely that youth (and their parents) could see which jobs led to higher wages and more security. The segmentation of labor markets--the development of internal labor markets, the growing distinction between unskilled and semiskilled work and that of professionals and managers, the conventional distinction between blue-collar and white-collar work born in the progressive era--may have made some of the connections between schooling and occupational success more obvious; the growing wage differentials and the greater inequality in the income distribution may have reinforced that recognition. Certainly, educators and reformers of the period proselytized tirelessly about the economic value of schooling; exhortations to stay in school to increase one's earnings, to "learn to earn", filled volumes of hortatory material. But most of all it is hard to imagine that young people could have continued to flood into the high school if the promises that schooling would pay off had been completely wrong. Even though the mechanisms by which changes in the relationship between schooling and work influenced individual behavior remain obscure, by the 1920s a different conception of schooling had become common. The president of the school board in Muncie, Indiana expressed the conception of vocationalism perfectly in the mid-1920s: "For a long time all boys were trained to be President. Then for a while we trained them all to be professional men. Now we are training boys to get jobs." The working class parents of Muncie acknowledged that role: when the Lynds interviewed them, they found that working class families wanted their children to stay in school so they could get ahead.[36]

The consequences of the changed relationship between schooling and work have been vast, for youth as well as for schooling. The transformation of work helped create the concept of adolescence as a moratorium before adulthood, because it increased the advantages to delaying entry into the labor force. The "discovery" of adolescence in the progressive era--building on nineteenth century roots, to be sure, but novel in the magnitude of interest--reflected a fast-developing reality in the lives of young people. Staying in school--along with living at home while in school--delayed the shift to full adult responsibilities, creating an ambiguous period between childhood and adulthood, a period of anxiety because the decisons seemed so momentous and irreversible.[37]

The vocationalization of American education--its role as means of access to occupations--has also transformed educational institutions themselves. While we often think of vocationalism in terms of differentiated curricula and conventional vocational courses, the ideology and practice of vocationalism has been considerably more extensive. Vocationalism narrowed debate over the purposes of schooling. How to prepare youth for jobs in the labor market, rather than whether this should be done, became the focus of discussion. The differentiation of the curriculum followed, in response to differentiation within the labor market. Concepts of fairness and equality of opportunity were also transformed by vocationalism. In the prevailing view, a single curriculum which led to work or to college denied opportunity; since one could not move vertically through an occupation or industry, different programs based on varying abilities and interests constituted the only fair way to prepare people for different roles in the labor market. In reproducing the stratification of the labor market within the schools, vocationalism recognized that "reality".

Another implicit recognition of changing occupations came in the declining discussion of the dichotomy between "head and hand". Advocates of manual training before 1900 complained that "hand" labor and "brain" labor were becoming sharply distinguished, and that middle class and working class worlds were becoming increasingly separated. They challenged this division by calling for a curriculum which trained both "hand" and "brain". Progressive reformers like John Dewey and Jane Addams similarly called for vocational training which would allow even unskilled laborers to think about their work, to limit the dichotomy between mental and manual as much as possible.[38] Implicit in the call to enlarge the responsibilities of education towards work was a recognition that work itself had been degraded. But by the 1920s debates over the dichotomy were all but gone. As the labor process had successfully established the separation between skilled and unskilled labor, so too did schools accept it. So drastic had the change been that the criticisms of the labor market which underlay the manual training movement and some forms of vocational education disappeared; educators now said almost nothing against labor markets, and instead comdemned the schools for not being sufficiently adapted to the market.

Finally, just as the educational solution to youth problems narrowed the conception of what the schools might do, it also narrowed the range of feasible social policies. Save for the limited experience of the 1930s and the development of youth employment programs in the 1970s, schooling and training rather than job creation and direct employment have defined American youth policy. The coercive power of the resolution worked out early in the century, reinforced in the 1920s and 1930s and fully established after World War II, has left us with few theoretical alternatives and almost no practical ways of resolving the continuing problem of youth. At base, governmental reluctance to tackle alternatives and to intervene into private labor markets (save under the most adverse conditions) is political, a part of the support of the liberal democratic state for "private" institutions. But the attractivenss of the educational solution has also been a block to formulating other kinds of reforms, as policy-makers have consistently reasserted the potential of schooling rather than facing its limitations.[39]

In these ways vocationalism reshaped the conception of the schools and the purpose of going to school. This constitutes the first strand of vocationalism: access to valued occupations through schooling. In turn, this has also meant that alternative mechanisms of access to various occupations--through apprentice-like systems, through family ties, and through experience, for example--have increasingly been eliminated for all but the least rewarding jobs. Vocationalism was thus part of a significant shift (as yet incomplete) in the mechanisms of allocating social goods like income and status, one which continued to permit some limited individual mobilty within a structure of inequality.

The second strand of vocationalism involves the payoffs to attending school: with schooling increasingly serving as a mechanism of access to occupations valued for their earnings, status, or conditions of work, schooling began to make a significant economic difference after 1900. The precise roles of schooling in the labor market remain obscure--whether it operates by passing on cognitive abilities or behavior patterns, whether it is a signal of ability, or whether it is a credential in some irrational sense. But its role in leading to positions with higher earnings and status is relatively unambiguous, and appears to be a corollary of its role in allocating individuals in labor markets: if schooling failed to confer any economic advantage, then it could not be true that schooling served as a mechanism of access--and thus of limitation--to valuable occupations.[40] The two strands of vocationalism--the use of the schools as an allocation mechanism, and the existence of economic returns to schooling--became linked after 1900, and they have dominated all discussions of education since.

III. How Has Vocationalism Worked?

The variety of current dilemmas in the relationship between schooling and work presents the question of how well the educational solution--the conception of vocationalism we outlined in the previous section--has worked. Based on the available (and sketchy) evidence, our best hypothesis is that historically vocationalism has worked relatively well for several reasons. First, many of the expanding occupations--particularly office and clerical positions--were those where job skills were clearly teachable, and so the relationship of skill training in schools to skill utilization on the job seemed clear enough. For another group of expanding occupations--professional positions--the necessity for schooling came to be argued and accepted as part of the conception of professionalism and expertise, whether additional schooling was functionally necessary or not. Second, and partly as a result of these changes, the economic return to schooling became substantial, probably after 1900 and more certainly by the 1920s, so that staying in school was objectively "worth it". Third, although groups received differential benefits from extended schooling, the possibility of economic returns to school (together with the relative impossibility of other means of upward mobility) and the development of wide-spread belief in schooling as a mechanism of advancement muted criticism of the schools. Political efforts which might have turned against the schools instead focused on gaining greater access.

This does not mean that vocationalism worked equally well in all parts of the educational system. Programs had varying rates of return; industrial education programs probably had low or no income returns, though other vocational programs--principally commercial education--probably enjoyed some returns. Blacks in comparison to whites almost received trivial returns from additional schooling, although the small number of professionals found that schooling could pay off. The sex-segmented labor market meant that returns to schooling were less for women than men, although again staying in school almost certainly meant some distinct advantage over dropping out of school.[42] For these groups vocationalism served the function that it has continued to serve--that of segregating them into lower-paid and lower-status positions, while legitimizing this allocation on the grounds of merit and ability. For working class and immigrant youth, in addition to the uncertainty about the return they faced, the ideal of equal opportunity was one in which educational opportunities were provided according to the "evident or probable destinies" of individual students, forecasts of their future places in the occupational hierarchy which were inevitably biased by class and race.[42]

In this sense, then, vocationalism as established early in the twentieth century "worked"--it generated a new conception of the role of schooling as preparation for occupations, as a mirror of social stratification, and as certification for occupational access. Schooling on the whole paid off on its economic promises. In areas of inconsistency --the obviously low returns to some groups, the tension betwen meritocratic and egalitarian goals--other mechanisms were available to mute the potential challenges to vocationalism. In its very success, however, vocationalism set up a pattern of behavior, both in schools and in labor markets, which has led to the problems of the 1960s and 1970s. At this point we cannot describe precisely how this pattern developed, but four problems which have emerged suggest the dilemmas created by vocationalizing the educational system.

First, the promise of economic returns has meant that schooling as a warehousing device has been limited. Warehousing has been possible and legitimate only when returns to schooling are rising because of demand patterns outside the control of the schools themselves, as in the early twentieth century and in the immediate post-World War II period. But where there are no economic returns, or when returns are falling, then various difficulties with warehousing arise. One example has been the debate over vocational education since the early 1960s, when the irrelevance of many vocational programs caused a series of reforms, each of them trying to establish the vocational relevance of vocational education. Another example has been the falling returns to college education in the 1970s: both those who argued that "over-education" was the cause and those who tried to re-establish the return to college by increasing federal subsidies to higher education agreed that the only justification for extended schooling was economic. In effect, then, schools can be easily used as warehouses only when economic returns are substantial. If returns in terms of either earnings or status begin to decline, then charges of schooling's irrelevance are generated, setting in motion political efforts to reshape the returns to schools.

A second problem, related to the first, is that the vocationalization of the schools has exacerbated the contradictory forces on the schools with respect to the allocation of social positions over generations. Once schooling began to be the mechanism of entry into occupations, then gaining access to schools--more specifically, to those schools and those programs known to be "good" (that is, with high economic returns)--came to be important. For lower-class parents, schooling became the mechanism of upward mobility; for middle-class parents, it became the institution through which they could insure that their children would maintain their class standing. The vocationalization of schooling became a basis for the politicization of education. But inequalities in political power among groups shaped the outcome of political battles. Middle-class and white parents have typically enjoyed the advantages of political power, familiarity with bureaucratic and professionalized institutions, and the fact that the agenda of the schools has been defined in terms of the middle-class occupations, norms, and values. It is not surprising that they have won most of the battles. Nonetheless, minority, immigrant and working-class parents have been able to draw upon the ideology of equalization as a goal of schooling, and through the political uses of that ideology have managed to make some slow gains. Whether middle or working class, white or non-white, vocationalization has meant that all groups assume that schools exist for the private gain of individuals. The use of the schools for some "public" purposes--as distinct from the "private" purposes of providing economic advantage for one's own children--has been made all the more difficult by the vocationalization of education.

Third, the vocationalization of schooling started the process of "leap-frogging" and credentialing.[43] As schooling came to be the mechanism of social and economic advancement, then the incentive for each individual was to gain as much schooling as possible (even for those like women and minorities for whom advanced schooling had limited returns). This process in turn led to increasing rates of high school attendance, and then to higher rates of college attendance. But the growth in the skill requirements of jobs has not kept pace with the educational attainments of the available work force, except for accidents of changing sectoral composition (like the expansion of professional and technical jobs in the post-war period). The consequence is the tendency for jobs of relatively low skill to be filled by individuals with higher levels of schooling, a process variously referred to as educational upgrading or (more prejoratively) educational inflation.[44] The decisions of students, individually rational, have led to a situation which is in the aggregate irrational, and where the relation between schooling and work again is degraded and problematic. In addition, the process of credentialing makes it more difficult for those without schooling--particularly minorities--to find positions as adults, and it may exacerbate the problem of youth unemployment.[45]

Fourth, vocationalism reinforced the pattern of relying on educational solutions to economic and labor market problems. This was obvious during the 1960s, when human capital theory developed and justified the educational solutions characteristic of that decade--compensatory education and manpower training programs. Even when the source of the problem was thought to lie in changing labor markets--for example, with the threat of technological unemployment in the early 1960s--the solution has still been to provide retraining as a way of adjusting individuals to new occupations, rather than to investigate possibilities for reshaping the labor market itself. In drawing attention away from the labor market, educational solutions reflect the political unwillingness of the state to intrude into ostensibly private institutions, and they defuse political pressure to do so.

Over the long run, vocationalism has generated the problems of credentialing, exacerbated the problems of equalizing opportunity, heightened conflict within the schools, and--through these various problems--contributed to the pervasive and recurring criticism of the irrelevance of schooling. As a consequence vocationalism is so contradictory in its effects that it cannot resolve the problems it set out to solve: rather than making school-based training consistent with occupational requirements, it has made them increasingly irrelevant. None of this was inevitable, since alternatives have always been available. One is to emphasize employment programs and institute training programs (in the schools or in some other institutional setting) geared to the jobs created, rather than continuing the present situation in which training programs are uncoordinated with job opportunities and public employment.[47] Similarly, if youth unemployment is to be considered a serious problem, then expansion of employment programs as distinct from training programs seems an obvious prerequisite. For the problems which minority youth face in particular, there can be no substitute for efforts to reduce labor market discrimination, through Title VII and other similar programs; otherwise education and training programs simply fail to have as much payoff for them as for white students, and therefore fail to give them the intended advantage.[47] Other efforts to reduce credentialing might be undertaken. So too might efforts to eliminate training programs which have no payoff in terms of earnings or employment. The elimination of such worthless programs might transform the image of the schools, with high schools and college reserved for "academic" programs and all skill-specific courses outside the schools--either under public auspices, as in the short courses now part of community colleges, or in private hands as in proprietary training schools and firm-based programs. Such an arrangement would also eliminate one of the mechanisms of tracking within the high schools and community colleges--though of course it would not eliminate the pressure for stratification in the schooling system.

While a number of alternatives have been possible, they are not likely to be implemented. In the past, evidence of the irrationality of educational solutions has been ignored, particularly in the constant affirmation of vocational education, in the search during the 1960s for solutions through manpower programs, and in the efforts in the 1970s to resurrect manpower approaches in "employment and training programs". The educational solution is too deeply embedded in our institutions; the alternatives are too politically embattled. Alternatives to conventional educational resolutions have in fact been possible only as adjuncts to programs for adults. The youth programs of the Depression were part of employment programs for adults; the development of CETA and YEDPA programs for youth depended on prior demands for public employment programs for adults suffering high unemployment rates; efforts to combat discrimination, rarely invoked for youth, began with efforts to reduce discrimination for adults. To be sure, the advent of public employment programs, anti-discrimination efforts, and the Occupational Health and Safety Administration during the 1960s and 1970s have slowly changed the conception of what the state might do with respect to personnel policies and labor markets. But still the historical record indicates that there can be no real change in programs for youth until there are corresponding changes in programs for adults, and youth are generally the last group to enjoy the benefits of these efforts. That conclusion reveals how unsatisfactory the resolution of the "youth problem" has been.

Postscript: What We Need to Know

We have offered an interpretation of how the relationship between schooling and work changed after the turn of the century, and outlined some of the implications of that change for students, schools, and "youth policy" in general. We are acutely aware of how tentative our argument is in terms of both the historical record and the current relationships between school and work. In speculating about changes, we have emphasized the first three decades of this century; yet, to the extent that labor market changes have continued to shape school organization and educational decisions, those changes must be followed into the present. We have also treated the schools as essentially reactive, although by the 1940s schooling itself was beginning to affect the labor market, if only by keeping more youth out of the market. Both our argument and its limitations need to be examined through extensive research in historical and current sources.

For example, the hypothesis of a major shift in the relationship between work and schooling in the first decades of the century, with increasing returns to schooling tied to labor market changes, requires an investigation of the labor market consequences of schooling during the nineteenth century, and whether the returns were essentially zero for most individuals as we suggest. We would expect to find generally rising levels of returns to schooling after 1900, with returns increasing first in areas of the country where occupational shifts (e.g., to more retail and clerical positions, to large-scale corporations, to the elimination of young workers) were more pronounced, while in other areas of the country--rural areas, for example, or perhaps the under-developed South--changing relationships between schooling and work may not be visible. We also need to know why the return to schooling changed. In particular our claim that stratified labor markets were important in shaping decisions about schools, as well as the claim that deskilling, the growth of corporations, internal labor markets, and rationalized hiring policies both structured these labor markets and established the relationship between schooling and work, need to be examined. The reasons for the use of schooling in more formal hiring procedures need some investigation, perhaps from company records or company histories; our hunch is that if we knew more about the use of schooling as a credential early in the century, we would have significant insight into the current nature of credentialing and some indication of its stability. The relation between schooling and office and managerial work is another aspect on which we have some tantalizing but incomplete data: we know that enrollments in commercial programs boomed, and we have assumed without demonstration that this was economically rational. The final transformation of the early twentieth century we outlined was a change in the nature of professionalism (more than a change in its magnitude); for all that has been written about professionalism we still know less than we need to about actual educational practices and their influence on the schools generally.

A related issue involves the nature of the youth labor market. We have argued that the creation of a secondary labor market did not by itself push young people out--indeed, unskilled jobs in the secondary sector seem well suited to assumptions that youth are unstable and irresponsible. But by the second decade of the twentieth century there exists some evidence that employers did not want youth at work in their firms, at least those under 18. Why young people suddenly became "unfit" for employment is not very clear. Assertions that youth could not be trusted to operate complex machinery or to stay on the job assume that young people's behavior was substantially different than the behavior of those who replaced them. An alternative is that the changing demand for young people may have been designed to protect the labor market against teenage workers. The support of organized labor for vocational education, for example, stressed its importance for those already on the job in order to advance existing workers, and demanded that it keep high school youth off the labor market. Whatever the explanation, the historical origins of discrimination against youth are important because such patterns have persisted and continue to generate unemployment and "dead-end" jobs for teenagers.

If the hypothesis of increasing returns to schooling after 1900 is verified, the link between changing returns to school and attendance patterns is still unclear. There are no satisfactory explanations for the rising attendance rates in high school after 1890, though conventional human capital theory would predict rising attendance in response to rising rates of return. Both the levels and patterns of enrollment are of interest: patterns of enrollment by different tracks developing within the high school--academic, industrial, commercial, and agricultural, for example--might reveal which enrollments were motivated by economic advantage and which served as tracking mechanisms. The mechanisms which prompted students to change their education decisions and the ways in which individuals became aware of changing opportunities through schooling are critical links in our argument.

Our conception of vocationalism encompasses not only increasing returns to schooling, but also the hypothesis that access to occupations over time is increasingly dependent on schooling levels. The trend of increasing educational requirements for occupations provides some confirmation of this, but without much sense of how the process occurred or what routes to occupations schooling replaced. It may turn out, for example, that schooling reduced the influence of family and kin. Different mechanisms to examine include the gradual elimination of alternative routes into different occupations, the process of licensing which appears to have escalated educational requirements for a variety of semi-professions and limited other mechanisms of access, and the ways in which firms responded to an over-supply of educated workers through "educational inflation".

Even though the human capital model may help explain rising school attendance during the progressive era, we find this an incomplete and unbalanced theory. Two implications of the human capital model in particular need to be examined. The first is that attendance falls in response to falling returns, just as it rises when returns are going up; our hypothesis would be that responses are asymmetric, with falling rates of return having relatively little impact on attendance (until returns fall to zero, perhaps) because of the struggle for advantage, no matter how small. Second, the human capital model stresses the supply side of the labor market and supply adjustments (e.g., educational enrollments) in restoring the equilibrium rate of return to schooling. Other equilibrating mechanisms exist, and need to be integrated into a more appropriate theory. One is the effort to increase the rate of return by lowering the direct costs of attendance, as in recent efforts by middle-class parents to increase federal subsidies to higher education. Another, probably more important, is the response of employers to rates of return: if rates of return fall, then under most conditions the "price" of educated labor is falling relative to uneducated labor, and the normal response to such a price change is to increase the demand for educated labor, and to restore (at least partially) the rate of return. However, this adjustment may proceed by using educated labor in occupations previously filled by less educated labor, stimulating the process of educational attainments outrunning job requirements which has been documented for the post-war period. Such a model would encompass rates of return as well as the problems of credentialing and the degradation of jobs which have occurred throughout the post-war period.

Another flaw of the human capital model is that the nature of the relation between schooling and earnings is unexamined. Although there is by now a relatively large literature on credentialing and signaling, it is still far from deciding among the competing hypotheses. There are endless statistical studies examining the economic returns to schooling in the aggregate, and yet there is still almost no data on what kinds of programs pay off--what kinds of vocational programs under what labor market conditions, whether some kinds of skills are most readily taught in schools, whether two-year colleges have the economic returns which many students seem to believe. With the proliferation of training programs in different institutional settings--including high schools, two-year colleges, proprietary schools, various CETA and YEDPA programs, as well as in traditional apprenticeship and firm-based programs--there is an opportunity to examine which kinds of settings are appropriate for different occupations and different goals (e.g., equalizing access for women and minorities).

Because of the dominance of the human capital model and its emphasis on the supply side of the labor market, there has been almost no investigation of demand-side influences on the employment and earnings effects of schooling, aside from the common statement that occupational expansion in the post-war period was education-intensive. In particular, the influence of the changing sectoral composition of employment and changing occupational composition within sectors (as distinct from the process of educational inflation for specific occupations) has not been established; although both of these may have increased the return to schooling, they operate in very different ways. (Evidently, some of the same questions ought to be asked historically.) Some of the developments in the nature of skill training--the rule of proprietary schools, for example, and the very recent development of short, specific-skill courses in community colleges--have not been closely examined, though these developments imply that some kinds of specific skill training have been difficult to provide in the schools (though public provision might also be undesirable. Finally, although this seems unbelievable, there has been no general work on the microeconomics of training programs which might be useful in specifying the effects of training under different demand conditions. Such theoretical work might specify the conditions under which training programs have an economic impact (in terms of either earnings or employment) as well as indicating when educational policies are likely to be worthless.

Finally, the overarching questions involve the relationship of the state to schooling and work. We need to ask why public support has so readily been given to expanding schooling, rather than to intervention into the labor market. On one level the answer is obvious: by promising to solve social, political, and economic problems through the schools, more fundamental reforms could be avoided. In periods of tension between labor and capital, the promise that education can correct the mismatch between workers and jobs directs attention away from the structural inability of capitalism to provide enough employment, or enough decent jobs to match expectations about work. Claiming, as educational reformers always have, that education can increase productivity is politically powerful in a society which values productivity so highly. But arguing that the resort to education has occurred simply because it has successfully avoided "real" problems is incomplete. After all, schooling has "worked", at least in the sense that it withdrew youth from the labor market and has provided economic returns to some individuals, and it has become the focus of aspirations for upward mobility, largely (though not entirely) replacing the more family-linked mechanisms of the nineteenth century. At the same time schooling has not worked well enough to mystify all of the people all of the time, since political battles over access to the schools have intensified and since alternatives to schooling--like manpower and employment programs--have been instituted. The ambiguity of the educational solution, as the state has grappled with the problems of youth and the preparation of adolescents for adulthood, remains one of the important legacies of the early twentieth century.

Footnotes

[1] For a more thorough review of current issues, see W. Norton Grubb, "Schooling and Work: The Changing Context of Education," in Charles Benson and Michael Kirst (eds.), *Education, Finance, Governance and Organization: Future Research Directions* (Washington: National Institute of Education, forthcoming).

[2] We have argued some of the historical continuities in several places; see Marvin Lazerson and W. Norton Grubb, *American Education and Vocationalism: A Documentary History, 1870-1970* (New York: Teachers College Press, 1974); W. Norton Grubb and Marvin Lazerson, "Rally 'Round the Workplace: Continuities and Fallacies in Career Education," *Harvard Educational Review*, 45(November 1975): 451-474; and W. Norton Grubb, "The Phoneix of Vocationalism: Hope Deferred is Hope Denied," *New Directions in Schooling and Work*, 1(Spring 1978): 71-90. On the 1930s and 1940s, see Robert and Helen Lynd, *Middletown in Transition* (New York: Harcourt, Brace and Co., 1937), esp. pp. 47-50 and Howard Bell, *Matching Youth and Jobs: A Study of Occupational Adjustment* (Washington, DC, 1940).

[3] Congressional Budget Office, *Policy Options for the Teenage Unemployment Problem*, Background Paper No. 13, Sept. 21, 1976, updated with data from the Bureau of Labor Statistics. For the effect of unemployment as youth on adulthood, see Paul Osterman, *Getting Started: The Youth Labor Market* (forthcoming), Ch. 5; and Wayne Stevenson, "The Relationship Between Youth Unemployment and Future Employability and Earnings," in *Supplementary Papers from the Conference on Youth Unemployment: Its Measurement and Meaning* (U.S. Department of Labor, 1978).

[4] The process of coping with our ambivalence towards young people by the psychological mechanisms of splitting and projection--of blaming "other people's children" of bad behavior, and accusing them of corrupting one's own children--is particularly active in the case of adolescents, particularly in the discussions of the evil effects of youth culture and the dangers of the wrong crowd. See Kenneth Keniston, "Notes on the Role of Children in American History," unpublished, 1973.

[5] On the G.I. Bill, see Keith Olson, "The G.I. Bill and Higher Education: Success and Surprise," *American Quarterly*, 25(1973): 596-610. For two year colleges, see Jerome Karabel, "Community Colleges and Social Stratification," *Harvard Educational Review*, 42(1972):521-562; and Burton Clark, "The 'Cooling-Out' Function in Higher Education," *American Journal of Sociology*, 45(1960):569-576. On the absorption by colleges and universities of the unprecedented numbers of young people in their late teens during the late 1960s, see Norman Ryder, "The Demography of Youth," in President's Science Advisory Committee, *Youth: Transition to Adulthood* (Chicago: University of Chicago Press, 1974).

[6] The reasons for the deterioration include the large size of the age cohort, the last of the baby boom, and increased participation rates. For some notions about increases in participation rates, see Congressional Budget Office, op.cit., pp. 17-19.

[7] For some evidence on variation in information, see "Knowledge of the World of Work," Career Thresholds, Vol. 1, Ch. 5, U.S. Department of Labor Manpower Research Monograph No. 16, 1970. On unemployment rates for blacks and Hispanics, see Employment and Training Report of the President, 1978, Table A-20; and Workers of Spanish Origin: A Chartbook, Bureau of Labor Statistics, Bulletin 1970, 1978, Table C-14. For evidence that racial differences reflect discrimination, and cannot be explained by the educational and demographic differences between white and black youth, see Paul Osterman, "Racial Differentials in Male Youth Unemployment," in Getting Started, op.cit., Ch. 4.

[8] For evidence on the preference of employers to hire older workers, see Paul Barton, "Youth Unemployment and Career Entry," in Seymour Wolfbein (ed.) Labor Market Information for Youth (Philadelphia: Temple University Press, 1975); Youth Unemployment and Minimum Wages, Bureau of Labor Statistics Bulletin 1655, 1970; Daniel Diamond and Hrach Bedrosian, Hiring Standards and Job Performance, U.S. Department of Labor Manpower Research Monograph No. 18, 1970.

[9] For evidence that child labor laws do seem to affect employment patterns for those under 18, see Daniel Mitchell and John Clapp, "The Effects of Child Labor Laws on Youth Employment," Conference Report on Youth Unemployment, op.cit. However, employers tend not to be able to indicate what child labor laws are violated in specific cases, and so the authors interpret their actions as a way of avoiding the risk violating child labor laws rather than the constraints of the laws themselves. For the conflicting evidence on minimum wage, see CBO, op.cit., pp. 33-39; Osterman, Getting Started, op.cit., Ch. 5.

[10] See the discussion of work-based programs in Michael Timpane, Susan Abramowitz, Sue Berryman Bobrow, and Anthony Pascal, Youth Policy in Transition, Rand Report R-2006-HEW, June 1976; of career education in W. Norton Grubb and Marvin Lazerson, op.cit.

[11] Good summaries of the programs include CETA: An Analysis of the Issues, National Commission for Manpower Policy, Special Report No. 23, May 1978; Employment and Training Report of the President, 1978, op.cit. Within CETA, only 24% of youth are in public employment positions (compared to 43% overall), with the other 76% enrolled in CETA Title I programs which provide training, counseling, and other services but not employment; a large number of these employed are in summer positions, jobs so temporary--and so obviously aimed at "warehousing", at keeping youth off the streets--that it is difficult to consider them serious efforts at either employment or training. YEDPA has also failed to change the thrust of federal policy; the bulk of enrollments are in the Youth Employment and Training Programs, which again provide training and ancillary employment services. For data, see CETA: An Analysis of the Issues, Table 4.

[12] Bradley Schiller, "Program Outcomes," in *CETA: An Analysis of the Issues*, *op.cit*.

[13] Charles Killingsworth and Mark Killingsworth, "Direct Effects of Employment and Training Programs on Employment and Unemployment: New Estimates and Implications for Employment Policy," in *Conference Report on Youth Unemployment*, *op.cit*.

[14] Randall Collins, *The Credential Society: An Historical Sociology of Education and Stratification* (New York: Academic Press, 1979), p. 4. Data on individual cities reveal the same phenomenon of increasing school attendance; in Providence R.I., for example, high school attendance went from 10.6% of the age group in 1880 to 53.6 by 1925. Joel Perlmann, "Education and Social Structure in Providence, R.I., 1880-1920," unpublished ms. The data on Providence is especially significant because unlike most studies it takes into account population growth. See also David Hogan, "Capitalism and Schooling: A History of the Political Economy of Education in Chicago, 1880-1930," doctoral diss., University of Illinois, Urbana, (1978):352-354.

[15] Hogan, *op.cit*., pp. 352-430; Perlmann, *op.cit*.; Michael Olneck and Marvin Lazerson, "The School Achievement of Immigrant Children, 1900-1930," *History of Education Quarterly*, 14(Winter 1974): 453-482.

[16] For the traditional human capital model, see Martin Trow, "The Second Transformation of American Secondary Education," *Comparative Sociology*, 2(1961):144-166. For the alternative, see Samuel Bowles and Herbert Gintis, *Schooling in Capitalist America* (New York: Basic Books, 1976). On skill levels in general, see Harry Braverman, *Labor and Monopoly Capital* (New York: Monthly Review Press, 1974).

[17] Joseph Speakman, "Unwillingly to School: Child Labor and Its Reform in Pennsylvania in the Progressive Era," unpub. doct. diss., Temple University, 1976; Daniel Nelson, *Managers and Workers: Origins of the New Factory System in the United States, 1880-1920* (Madison: University of Wisconsin Press, 1975), Ch. 7.

[18] See, e.g., Jane Addams, *The Spirit of Youth and the City Streets* (Urbana: University of Illinois Press, 1972 ed; first published in 1909); Anthony Platt, *The Child Savers: The Invention of Delinquency* (Chicago: University of Chicago Press, 1969).

[19] Joseph Kett, *Rites of Passage: Adolescence in America, 1790 to the Present* (New York: Basic Books, 1977).

[20] The role of income levels in permitting longer stays in school has been advanced as a central reason for the expansion of the schooling at the turn of the century. For example, Modell attributes the greater propensity of Irish households to supplement family income with children's earnings, compared to native-born whites, to differences in the family head's income. Similarly Hogan, *op.cit.*, pp. 366-382, found, for working-class families in Chicago, that working rather than continuing in school was an economic decision based on the needs of survival or, where families were above the poverty line, to assure some economic security through the purchase of a home. Of course these kinds of economic barriers have always kept the poorest children out of school, as they still do, but as an explanation for changes over time this is a weak argument. During the nineteenth century, both working class and middle-class youth who could have stayed in school left to enter the job market; conversely working-class and immigrant children appear to have entered the high school in great numbers after 1900 when the income of their parents may have been deteriorating because of the increasing inequality in the income distribution and when immigrants were generally poor. Thus we suspect the role of increasing affluence as an explanation for school attendance was distinctly minor. John Modell, "Patterns of Consumption, Acculturation, and Family Income Strategies in Late Nineteenth Century America," in T. Harevan and M. Vinovskis (eds.), *Family and Population in Nineteenth-Century America* (Princeton: Princeton University Press, 1978). On widening wage and income differentials at the turn of the century, see Jeffrey Williamson, "The Sources of American Inequality, 1896-1948," *Review of Economics and Statistics*, 58(November 1976): 387-397; and Peter Lindert, *Fertility and Scarcity in America* (Princeton: Princeton University Press, 1978), Ch. 7.

[21] Our description of the nineteenth century draws on Kett, *op.cit.*; Michael Katz, *The People of Hamilton, Canada West: Family and Class in a Mid-Nineteenth Century City* (Cambridge: Harvard University Press, 1975); Clyde and Sally Griffen, *Natives and Newcomers: The Ordering of Opportunity in Mid-Nineteenth Century Poughkeepsie* (Cambridge: Harvard University Press, 1978); Carl Kaestle and Maris Vinovskis, "Education and Social Change in Nineteenth Century Massachusetts," Research Report, National Institute of Education, 1976; David Montgomery, "Workers' Control of Machine Production in the Nineteenth Century," *Labor History*, 17(1976): 485-509; John Modell, Frank F. Furstenberg, Jr., and Theodore Hershberg, "Social Change and Transitions to Adulthood in Historical Perspective," *Journal of Family History* (1976), 7-32; and Michael Katz and Ian Davey, "Youth and Industrialization in a Canadian City," in J. Demos and S. Boocock (eds.), *Turning Points: Historical and Sociological Essays on the Family* (Chicago: University of Chicago Press, 1978).

[22] Katz and Davey, *op.cit.*, found that school attendance in Hamilton, Ontario in 1861 and 1871 "exerted no influence upon the occupation of young men." This is not to suggest that schooling in the nineteenth century had absolutely no economic returns. Although access to most professions and commercial occupations could be gained without very extended schooling, it nonetheless required literacy, a skill undoubtedly enhanced by schooling. The mid-nineteenth century feminization of teaching, nursing, and librarianship provided access to occupations for women for which schooling proved useful and sometimes necessary. Debates over public funds for high schools reveal concern over the potentially vocational role of secondary education; see Bella Rosenberg, "The Search of Equity and Fairness: The Assumptions of Public Responsibility for Secondary Education, 1821-1880,"

Qualifying Paper, Harvard Graduate School of Education, 1975. Yet in an economy in which many youth learned skills on the job, in which skills learned at one level could secure advancement, and in which there were limited efforts to make schooling an occupational prerequisite, we hypothesize that the relationship between schooling and employment was much more tenuous than it became in the twentieth century.

[23] Griffen and Griffen, op.cit., Chs. 7-9. See also the kind of mobility described in Herbert Gutman, "The Reality of Rags-to-Riches 'Myth': The Case of the Paterson, New Jersey, Locomotive, Iron, and Machinery Manufacturers, 1830-1880," in H. Gutman, Work, Culture and Society in Industrializing America (New York: Vintage, 1976). See also the discussion in Hogan, op.cit., Ch. 2.

[24] Robert Averitt, The Dual Economy (New York: Norton, 1968).

[25] On internal labor markets, see Peter Doeringer and Michael Piore, Internal Labor Markets and Manpower Analysis (Lexington: D.C. Heath, 1971).

[26] Nelson, op.cit. Ch. 8.

[27] On some of the potential reasons for using schooling completed as a hiring credential, see V. Lane Rawlins and Lloyd Ulman, "The Utilization of College-Trained Manpower in the United States," in Margaret Gorden (ed.), Higher Education and the Labor Market (New York: McGraw-Hill, 1974).

[28] Selwyn Troen, "The Discovery of the Adolescent by American Educational Reformers, 1900-1920: An Economic Perspective," in L. Stone (ed.), Schooling and Society: Studies in the History of Education (Baltimore: Johns Hopkins Press, 1976).

[29] Kett, op.cit., 144-150. Using Hamilton data, Katz and Davey, op.cit. found a slight trend towards working earlier for boys when comparing 1851 and 1871; in 1851, 41% of all 15 year old males were employed, and 53% in 1871. The reverse trend occurred for girls, however; 34% and 16% of all 15 year old females were employed in 1851 and 1871 respectively, suggesting that income returns to schooling rose first for girls than boys. Walkowitz reports an increase in male youth under 15 among unskilled iron workers in Troy, New York between 1860-1880. On the growth of unskilled labor, Walkowitz's findings are especially instructive. In terms of actual jobs in the iron mills, the number of unskilled workers increased from 180 to 1121 in the two decades, while the number of skilled molders only increased from 426 to 762. The job market during the expansion of the iron industry appears to have opened considerably for unskilled workers, including those under 20, but only slightly for skilled workers, a declining proportion of whom--from 12.3% to 7.6%--were under 20. Daniel J. Walkowitz, "Statistics and the Writing of Working Class Culture: A Statistical Portrait of the Iron Workers in Troy, New York, 1860-1880," Labor History, 15(1974): 416-460.

[30] Osterman, Getting Started, op.cit., Ch. 4. Montgomery suggests that older workers may have wanted to keep youth out of the labor market since young people were "notorious for their proclivity to 'rate busting'," under piecework schedules. See David Montgomery, "Immigrant Workers and Managerial Reform," in R. Ehrlich (ed.), Immigrants in Industrial America, 1850-1920 (Charlottesville: University Press of Virginia, 1977).

[31] The costs added to production by child labor and truancy laws may have played some role. Joseph Kett notes that educators claimed that the costs of "immaturity" were too high for employers to risk hiring young people. See Joseph Kett, "Continuity and Discontinuity in the History of Vocational Training," in this volume.

[32] On why the expansion occurred, see Harry Braverman, Labor and Monopoly Capital: The Degradation of Work in the Twentieth Century (New York: Monthly Review Press, 1974); Alfred Chandler, The Visible Hand: The Managerial Revolution in American Business (Cambridge: Harvard University Press, 1977); and Nelson, op.cit.

[33] The evidence on the returns to schooling is sparse, but there is circumstantial evidence that women who attended public or private commercial schools were able to translate their schooling into office jobs and higher earnings. See Janice Weiss, "Education for Clerical Work: A History of Commercial Education in the United States Since 1850," doctoral diss., Harvard Graduate School of Education, 1978; and Miriam Cohen, "Changing Education Strategies Among Migrant Generations: New York Italians in Comparative Perspective," unpublished ms.

[34] Historical Statistics of the United States, Series D-182 and D-184.

[35] Note that in the connection between years of schooling, professional standing, status, and earnings there is a circularity: since the early twentieth century, the efforts to professionalize occupations have built upon an assumption that more schooling merited more status and higher earnings, while the development of professionalism helped to establish this relationship. On professionalism in the progressive era, see Magali Sarfatti Larson, The Rise of Professionalism: A Sociological Analysis (Berkeley: University of California Press, 1978): Ch. 9; Collins, op.cit., Ch. 6.

[36] Robert and Helen Lynd, Middletown (New York: Harcourt Brace and World, 1929): 194-196.

[37] The irreversibility of adolescent decisions which was assumed by turn of the century reformers has not been fully studied, but we suspect that it took on some of the elements of a self-fulfilling prophecy. Believing it, reformers expanded secondary schooling and then college as a way of delaying labor market entry, soon making decisions by 14-18 year olds about schooling and work take on the attributes of irreversibility. On the shift to adulthood, see Modell, et.al., op.cit.

[38] In 1909 Addams wrote: "If a child goes into a sewing factory with a knowledge of the work she is doing in relation to the finished product; if she is informed concerning the material she is manipulating and the processes to which it is subjected; if she understands the design she is elaborating in its historic relation to art and decoration, her daily life is lifted from drudgery to one of self-conscious activity, and her pleasaure and intelligence is registered in her product." See also Marvin Lazerson Origins of the Urban School: Public Education in Massachusetts, 1870-1915 (Cambridge: Harvard University Press, 1971), Chs. 3-7.

[39] See, for example, Henry Perkinson, The Imperfect Panacea: American Faith in Education, 1865-1965 (New York: Random House 1968); and Grubb, "The Phoenix of Vocationalism", op.cit.

[40] The tentativeness of our analysis reflects an attempt,as yet incomplete, to rethink human capital models. On the one hand, we suspect that human capital theory is correct in posing the existence of economic returns to schooling, though the theory is mute on the reasons for that return. But the ideas that the rate of return is in equilibrium with the return on capital, that enrollment responses to rates of return are uniform and symmetrical, the implicit emphasis with the human capital model on abilities and skill acquisition, the emphasis on enrollment changes (supply-side responses) as the only equilibrating mechanism, and above all the dismissal of any effects of class strike us as quite wrong. We propose several possible revisions to human capital models in the following sections. See the discussion of models of schooling in David Hogan's essay in this volume and in Collins, op.cit.

[41] See Miriam Cohen, op.cit., on the decision of Italian families to keep their daughters in school to gain access to office work. See also Weiss, op.cit.

[42] On this conception of equal opportunity, see Sol Cohen, "The Industrial Education Movement, 1906-1915," American Quarterly, 20(1968):95-110; and Lazerson and Grubb, op.cit., pp. 24-26, and documents 13 and 14.

[43] The literature on credentialing and related models--such as the signaling theories in which years of schooling measure an individual's innate ability--is by now large and complex. For a review of different models and some evidence supporting various credentialing theories, see W. Norton Grubb, "Signaling, Credentialing, and Variation in the Return to Schooling," unpublished draft, March 1978; Collins, op.cit.; and Hogan's essay in this volume.

[44] The showing that educational attainments have outrun educational requirements is a favorite within the literature on credentialing. See, for example, Rawlins and Ulman, op.cit.; Ivar Berg, Education and Jobs: The Great Training Robbery (New York: Praeger Publishers, 1970), Ch. 3.

[45] For a similar argument, see Richard de Lone, *Small Futures* (New York: Harcourt, Brace, Jovanovich, 1979).

[46] One fairly recent development to counter has been the trend to develop specific, short courses of training in post-secondary community colleges. These courses often at the instigation of employers, can be established within a month or two, enroll students only for the period of time required for the training program itself, and virtually assure placement in the firm requesting the training. While this appears to be a solution to the inflexibility of conventional school-based training programs, it also represents a significant departure from conventional vocational education, and one whose justification for public funds is still insecure. The coordination of training programs with existing jobs--those available in the private sector or created through public employment programs--is at the heart of Sweden's manpower program. See Kenneth Hauf, Beeny Hjern, and David Porter, "Implementation of Manpower Training: Local Administrative Networks in the Federal Republic of Germany and Sweden," discussion paper, International Institute of Management, Wissenschaftszentrum, Berlin, Dec. 1975.

[47] There is one real exception to our focus on employment rather than training programs. Hispanics in particular lag behind both blacks and Anglos in their levels of schooling, and this difference appears to account for a good proportion of the Anglo-Hispanic earnings difference. Narrowing this gap is critical to bringing the earnings of Hispanics up to those of other groups, whereas labor market discrimination remains a relatively more powerful barrier for blacks.

[48] See, e.g., the court decision in *Griggs v. Duke Power Company*. See also David White and Richard Francis, "Title VII and the Masters of Reality: Eliminating Credentialism in the American Labor Market," *Georgetown Law Journal* (July 1976); and Collins, *op.cit*.

MAKING IT IN AMERICA: WORK, EDUCATION AND SOCIAL STRUCTURE

David Hogan

I.

Prowling around the dark, cold, winter streets of Muncie, Indiana, in the early morning hours during the mid '20s, Robert and Helen Lynd were struck by the existence of "two kinds of homes: the dark ones where people still sleep, and the ones with a light in the kitchen where the adults of the household may be seen moving about, starting the business of the day." It is perhaps going too far to suggest that the quintessence of America could be found in this fact, but only just too far, for the Lynds' adduced that this difference as much as any other symbolized the major social cleavage they uncovered in Muncie. "For the seven out of every ten of those gainfully employed who constitute the working class, getting a living means being at work in the morning anywhere between six-fifteen and seven-thirty o'clock, chiefly seven. For the other three in each ten, the business class, being at work in the morning means seven-forty-five, eight or eight-thirty, or even nine o'clock, but chiefly eight thirty."[1]

Much of *Middletown* was taken up exploring the sources of this cleavage and to its influence upon the daily social life of the residents of the town. Its source they discovered in "what Middletown does to get its living." Beginning with a study of who earned Middletown's living, they found that 43 out of every 100 did so; 4 out of 5 were males, and 1 out of 5 women; surprisingly, 28 out of every 100 gainfully employed women were married. Most worked in "working class occupations," chiefly in manufacturing and mechanical industries.[2] Nearly all of those who earned Middletown's living were wage earners, producing specialized products: "only to a negligible extent does Middletown make the food it eats and the clothing it wears," with the result that the individual workman was driven "even farther from his farm and village background of the eighties."[3] But not only was the worker not self-sufficient -- if he no longer "made the material necessities of everyday life" -- his work was also being transformed and his craft disappearing: "Inventions and technology continue rapidly to supplant muscle and the cunning hand of the master craftsman by batteries of tireless ironmen doing narrowly specialized things over and over and merely 'operated' or 'tended' in their orderly clangerous repetitive processes by the human worker."[4] Gradually "the demands of the iron man for swiftness and endurance rather than training and skill" had lead to the "abandonment" of the apprentice-master craftsman system. Work had been transformed "from a system in which length of service, craftsmanship, and authority in the shop and social prestige among one's peers tended to go together to one which, in the main, demands little of a worker's personality save rapid, habitual reactions and an ability to submerge himself in the performance of a few routinized easily learned movements . . ."[5]

With these changes in the nature of work, other changes followed. One was the disappearance of apprenticeship. In a machine shop, 75 percent of the labor force of 800 men "can be taken from farm or high school and trained in a week's time." In the glass plant, 84 percent of the tool-using personnel, excluding foremen, require one month or less of training; in Middletown's leading foundry "60 percent of all the castings produced are made by a group of newcomers who cast with the help of machines and require only a fortnight or so of training."[6] And with the disappearnace of the apprenticeship system, "the line between skilled and unskilled worker has become so blurred as to be in some shops almost nonexistent," with the consequence that the former avenues of mobility were disappearing. All that was possible was promotion to a foremanship, and that was a relatively rare event: for example, in six Middletown plants employing an average of 4,240 workers during the first six months of 1923 -- admittedly a time of economic recession -- there were ten vacancies for foremen over the period of 21 months from January 1, 1923 to October 1, 1924. In effect, in a year and three quarters there was a chance of promotion for 1 in 424, although there was some evidence that "the chance of becoming a foreman, small as it is, would appear to be somewhat better than it was a generation ago." And on top of the small chance to become a foreman, "increasing technological complexity and the resulting tendency to insert college-trained technical men into a force between foreman and owners appear to hinder a workman's progress beyond a foremanship more than formerly."[7]

The consequences of these changes in work and opportunity structures were little short of revolutionary. One, and the one that the

Lynds considered the most significant, was the appearance of a two class society in Middletown, the working class and the business class, "the outstanding cleavage in Middletown." The effects of this division upon the social and cultural life in the town were profound, for "the mere fact of being born upon one or other side of the watershed roughly formed by these two groups is the most significant cultural factor tending to influence what one does all day long throughout one's life since it influenced "whom one marries; when one gets up in the morning; whether one belongs to the Holy Roller or Presbyterian church; or drives a Ford or a Buick; whether or not one's daughter makes the desirable high school Violet Club; or one's wife meets with the Sew We Do Club or with the Art Students League; whether one belongs to the Odd Fellows or to the Masonic Shrine; whether one sits about evenings with one's necktie off; and so on indefinitely throughout the daily comings and goings of a Middletown man, woman, or child."[8]

A second consequence, helped along by the appearance of new modes of transportation, was a spatial separation of the place of work from the home and the disappearance of old working class neighborhoods. Where once the working class lived within walking distance of the plant, new workers' dwellings were "decentralized," with the consequence "that instead of a family's activities in getting a living, making a home, play, church going, and so on, largely overlapping and bolstering each other, one's neighbors may work at shops at the other end of the city, while those with whom one works may have their homes and other interests anywhere from one to two-score miles distant."[9] Yet another consequence was a shift in the locus of satisfaction from work to leisure and the family. The "decrease in the psychological satisfactions formerly derived from the sense of craftsmanship and group solidarity" caused workers in frustration to turn inwards towards their families and seek "compensations" elsewhere other than in their work; becoming a minor office holder in a political machine, going to the saloon, "hooking up the radio or driving the old bus," buying and consuming new fangeled goods, or just "hanging around the house."[10]

Finally, the Lynds noted that among a large section of the working class, and all of the middle or business class, a great "passion" for education had developed, which they found somewhat inexplicable in view of the remoteness of what went on in schools to the business of everyday life, at least for the older generation. Investigating further, however, they discovered that the reason that education evoked "the fervor of a religion," was that for the working class education was "a means of salvation," a path "to escape to better things," "an open sesame that will mysteriously admit their children to a world closed to them."[11] Moreover, this faith in the instrumental ability of education to lift their children out of the world of working class jobs -- "We want them to have a good education so they can get along easier than their fathers;" "If they don't have a good education, they'll never know anything about hard work" -- was matched by a commitment on the part of the community as a whole to a utilitarian and practical education. A gradual shift in the process of schooling from "the traditional dignified conception of what constitutes education" towards an education that seeks "to train for specific tool and skill activities in factory, office, and home" had occurred. By the mid-twenties, eight of the twelve courses of the high school were of this character; and more than any other part of the school curriculum, "these vocational courses consist in learning how rather than learning about." Moreover, they had "frankly adopted the canons of office and machine shop: they must change in step with the coming of new physical equipment in machine shops and offices, or become ineffective." Thus "actual conditions of work in the city's factories are imported into the schoolshops; boys bring repair work from their homes; they study auto mechanics by working on an old Ford car; they design, draft and make patterns for lathes and drill presses, the actual casting being done by a Middletown foundry; they have designed and constructed a house, doing all the architectural, carpentry, wiring, metal work and painting. A plan for providing work in a local machine shop, alternating two weeks of this with two weeks of study throughout the year, is under discussion." Justifying this "pragmatic commandeering of education," the president of the school board explained: "For a long time all boys were trained to be Presidents. Then for a while we trained them to be professional men. Now we are training boys to get jobs."[12]

For the rest, "the school, like the factory, is a thoroughly regimented world":

> Immovable seats in orderly rows fix the sphere of activity of each child. For all, from the timid six-year-old entering for the first time to the most assured high school senior, the general routine is much the same. Bells divide the day into periods. For the six-year-olds the periods are short (fifteen to twenty-five minutes) and varied; in some they leave their seats, play games, and act out make-believe stories, although in 'recitation periods' all movement is prohibited. As they grow older the taboo upon physical activity becomes stricter, until by the third or fourth year practically all movement is forbidden except the marching from one set of seats to another between periods, a brief period of prescribed exercise daily, and periods of manual training or home economics once or twice a week.[13]

There is much about Middletown that is idiosyncratic or anachronistic -- the virtual absence of large immigrant groups and blacks, the poverty and despair of the urban ghettos, the weaknesses of organized labor, the absence of large national corporations and extensive white collar bureaucracies, the small town, midwestern milieu -- that make it in some respect unique and special, even quaint. But even so, if Middletown isn't America, nevertheless it is still, after all, in America, and throws a spotlight upon many of the major processes involved in shaping the relationships between work, education and the social structure within the larger society as a whole: the existence of a market in labor and the migration from the farm and the village to the city, the transformation of the labor process and the nature of opportunity structures, the separation of work and residence, the demand for education as a means of mobility, the introduction of vocational education, the everyday character of school life, the creation of a class structure, and the process of class formation. It is these issues that are the focus of this paper; with all due allowance for the complicating questions posed for example by ethnicity, race, and large white collar bureaucracies.

II

The seminal event of American history in the last 180 years is the Industrial Revolution, for it was the forces unleashed by industrial capitalism that transformed the American social structure from that of a decentralized, agrarian society to that of an industrialized and urban one. All of the major features of America's social structure -- its market in labor, its complex class structure, its system of stratification, its opportunity structure, the pattern of its institutional development -- all are grounded in the impact of industrial capitalism upon the social life of America.[14]

The distinctive feature of the Industrial Revolution was the creation of a market in labor -- the creation of a wage labor system -- and the transformation of the social organization of production. The outstanding analysis of this process in America has been undertaken by Alan Dawley in his study of the shoemaking industry in Lynn, Massachusetts in the first half of the 19th century.[15] Dawley traced the destruction, as a consequence of market forces and economic policies, of the system of petty commodity production by independent craftsmen (shoemakers), and the beginnings of wage labor in the production of shoes as artisan shoemakers were forced to leave their "ten footers" for the "central shops" (pre-factory, non-mechanized places of production) owned by merchant capitalists. Moreover, this process of "class production," the transformation of the social relations or organization of production around the system of wage labor, was completed before industrialization, that is, before mechanization of the production process was undertaken and institutionalized in the factory system.

> A quarter of the century before the factory system, the relations of production essential to industrial capitalism were already present in Lynn. In fact, the existence of a group of entreprenuers who competed in the market, owned the raw materials and the critical means of production, and hired wage labor as a commodity was a necessary precondition for the successful conversion to mechanized, factory methods of production . . . The Industrial Revolution in shoe manufacturing built up momentum for half a century before it began the final, irrevocable turn to the factory system.[16]

The experience of the shoe industry was repeated in industry after industry. Norman Ware captured the essence of the factory system when he wrote that the factory system was "not dependent upon machinery; it could and did go on without it. Machinery accelerated and universalized it."[17] Siegfried Gideon noted that "before the turn of the [19th] century the attention of industrialists was being claimed not so much by new inventions as by a new organization."[18]

If the distinctive feature of the Industrial Revolution was the creation of a market in labor and the transformation of the social organization of production, the triumph of capitalism in America can be chartered by the progressive extension of the market in labor. At the time of the signing of the Declaration of Independence, 80 percent of the non-slave U.S. labor force were self-employed entrepreneurs (by far the most were farmers); about 20 percent were wage and salaried employees. One hundred years later only 36.9 percent were self-employed entrepreneurs; but the percentage of wage and salaried employees had increased to 62 percent; 1.1 percent were salaried managers and officials. By 1974, less than two hundred years since the Declaration of Independence, 83.0 percent of the labor force were wage and salaried employees; 8.2 percent self-employed entrepreneurs; and 8.8 percent salaried managers and officials (see Table 1). Where once the majority of non-slave Americans were economically independent, by the administration of President Grant a clear majority of the labor force were selling their labor power in the labor market; where once the majority of Americans lived on farms as self-sufficient or commercial farmers, or worked in their "ten footers" making shoes or in their bakeries, saddleries, blacksmiths or wagon-maker shops as independent commodity producers, by the turn of the century they belonged to the wage labor force of industrial capitalism and lived for the most part in urban areas. Even as late as 1873, three quarters of the American population lived in rural areas and half worked in agriculture; but by the 1890's, rural families constituted less than two thirds of the population and the agricultural work force was down to 42 percent. By 1910 agriculture accounted for 30.9 percent of the labor force; by 1910, 17.4 per-

TABLE ONE.[19] THE PROLETARIANIZATION OF THE U.S. LABOR FORCE[a]

Year	Percent Wage and Salaried Employees[b]	Percent Self-Employed[c]	Percent Salaried Managers and Administrators	Total
1780[d]	20.0	80.0	--	100.0
1880	62.0	36.9	1.1	100.0
1890	65.0	33.9	1.2	100.0
1900	67.9	30.8	1.3	100.0
1910	71.9	26.3	1.8	100.0
1920	72.9	23.5	2.6	100.0
1930	76.8	20.3	2.9	100.0
1939	78.2	18.8	3.0	100.0
1950	77.7	17.9	4.4	100.0
1960	80.6	14.1	5.3	100.0
1969	83.6	9.2	7.2	100.0
1974	83.0	8.2	8.8	100.0

Notes: [a]Defined as all income recipients who participate directly in economic activity; unpaid family workers have been excluded. [b]Excluding salaried managers and administrators. [c]Business enterpreneurs, professional practicioners, farmers, and other property owners. [d]Figures for 1780 are rough estimates. Salves, who comprised one-fifth of the population, are excluded; white indentured servants are included in the wage and salaried employees category.

cent; by 1972, only 3.8 percent.[20] At the same time, whereas in 1790 only 5.1 percent of the U.S. population lived in towns in excess of 2,500, and in 1830 only 8.8 percent, by 1860 19.8 percent lived in such towns; by 1910 the figure had reached 45.7 percent, and by 1920 it was well past the halfway mark. By 1970 almost three times as many individuals lived in urban areas as in rural areas.[21]

Apart from the concentration of workers in urban areas close to work, two further aspects of the process of proletarianization are particularly noteworthy: the increasing participation of women in the labor force, and the integration of blacks into the wage labor system. For a variety of reasons, particularly changing aspirations and the force of economic circumstance, since the late 19th century women have rapidly left the unpaid labor of the home for the wage labor of the factory, the shop, and the office. In 1880 only 12.8 percent of all women worked in non-agricultural jobs; by 1900 the figure had climbed to 17.3 percent, and by 1910, to 20.7 percent. For the labor force as a whole, from a figure of 18.2 percent in 1890, the percentage of women in the labor force had grown to 30 percent in 1950 and to slightly over 41.0 percent by 1970. Almost as interesting, however, as this proportional increase, is the character of the increase, for whereas 68.2 percent of the female labor force in 1890 were single, and only 13.9 percent married, by 1970 the proportions had reversed: 22.5 percent for single women and 62.3 percent for married women.[22]

TABLE TWO. PARTICIPATION OF WOMEN IN THE LABOR FORCE BY MARITAL STATUS FOR THE YEARS 1890-1970[a](23)

Year	Percentage of Total Work Force	Single[b]	Married[b]	Widowed/ Divorced[b]
1890	18.2	68.2	13.9	17.9
1900	20.1	66.2	15.4	18.4
1910	N.A.[c]	60.2	24.7	15.0
1920	22.7	77.0	23.0	N.A.[c]
1930	23.6	53.9	28.9	17.2
1940	25.8	49.0	35.9	15.0
1950	29.9	31.9	52.2	16.0
1960	35.7	23.6	60.7	15.7
1970	41.4	22.5	62.3	15.0

[a] These figures are based on monthly enumerations and thus reflect seasonal variation.

[b] As a percentage of the female labor force.

[c] N.A.: Not Available.

Perhaps even more spectacular than the entrance of women into the labor market was the transformation of the working status of blacks. After the Civil War and emancipation, apart from a few exslaves who became artisans and those who became wage earners in urban areas or on reorganized plantations, most became tenant farmers and sharecroppers. But during World War I large numbers of blacks moved north into the industrial cities of the midwest and northeast; some 25 years later, during World War II, another exodus commenced. By 1970, less than 20 percent of blacks lived in rural areas, and over 97 percent of employed blacks belonged to the wage labor force, chiefly in manual jobs.[24]

The overwhelmingly important consequence of the creation and expansion of a market in labor was the development of the distinctive class relationship of modern capitalism: the wage labor relationship between worker and capitalist. The class structure of modern capitalist societies of course is more complex, for reasons to be noted shortly; the point to stress now is that class in this sense does not refer, per Weber, to groups of people sharing common economic "life chances" determined largely by market relations, nor does it refer, per Warner, Parsons or Davis and Moore, to categories of people occupying common positions within status hierarchies, and nor finally, does it refer to conflict groups determined by their position within authority or power structures, as Dahrendorf and Lenski have suggested.[25] Rather, class refers to a social relationship, the wage-labor relationship, between two groups of individuals within the social organization of production.

To analyze the class structure of a society then is to investigate not its stratification system (its structure of inequalities with respect to hierarchies of income, education, wealth, occupation, etc.) but the character of the common structural positions within the social organization of production. At any one time, however, a social formation will include different modes of production (commercial, entrepreneurial, monopoly), each with their own distinctive social organization of production producing, in toto, a complex social division of labor: unskilled blue collar workers, skilled blue collar workers, labor aristocrats, low-level white collar workers, executives, managers, employers, technicians, petty bourgeoisie, professionals, and so on. How these groups are aggregated into classes and come thereby to constitute the class structure of a society at a particular point in time is a matter of considerable theoretical complexity -- and controversy.[26] In general terms I am convinced by Michael Katz's two-class dichotomy between workers and capitalists for 19th century America, and Eric Olin Wright's typology of capitalists, managers, workers and petty bourgeoisie for most of 20th century America.[27] The exact nature of the class structure of contemporary capitalism is of less interest, however, than the class structuration of social life -- transciency, opportunity structures and mobility paths, ecological patterns, systems of stratification, labor markets, institutional relationships -- around the institutions of wage labor and the social relations of production.[28]

III

First, transciency. With the creation of a market in labor, men and women moved to find work, and indeed, as scholars have recently noted, they moved at an extraordinary rate. Peter Knights, for example, found that Boston witnessed an annual turnover rate of households as much as 30 percent in the period 1830-1860; Stephen Thernstrom estimated that in antebellum Newburyport over 50 percent of the population moved every 10 years; Peter Knights found a turnover rate of at least 60 percent every 10 years for Boston between 1830 and 1860 and perhaps as high as 30 p.a.; Clyde and Sally Griffen report that in Poughkeepsie between 1850 and 1880, approximately half of the population of the city disappeared every 10 years from the city through migration or death; in Boston between 1880 and 1940 Stephen Thernstrom found that between 50 and 60 percent of the population moved; and Michael Katz notes similar trends in Hamilton between 1851 and 1861.[29] In general 19th century transcients were male, young, single, propertyless and worked in trades experiencing declining opportunities and skill dilution; ethnicity did not appear to make much difference. During the course of the 20th century, however, as nation-wide labor markets have been created and large corporations expanded their operations across the country, important changes have occurred in the kinds of individuals who are transcient. The rate of transciency is still remarkably high -- in a typical 12 month period, over 35 million persons, more than one-sixth of the U.S. population, change their place of residence; nearly two thirds of these moves however were inter-county moves (mostly residential changes); currently, every year about 3 percent of the population changes their state of residence, or a rate of about 30 percent every 10 years. So while the mobility rate is still high, it has dropped appreciably from 19th century levels. Much more dramatic, however, is the transformation in the demographic profile of the transcients. Beginning shortly after World War I, men in high status white collar jobs and skilled workers increasingly dominated the movement of the labor force: by the 1935-40 period, professionals and technical workers lived in the same county much less often than members of all other occupational strata. Since World War II, business executives have become particularly mobile -- along with professional workers (especially those who are salaried rather than self-employed) and some categories of skilled workers. For all employed civilian males 16 years and over, between March 1970 and March 1975, 27.7 percent of professional, technical and kindred workers moved to a different county; mangers and administrators, 19.8 percent; clerical and kindred workers, 16.5 percent; sale workers, 22.7 percent; craft and kindred workers, 15.0 percent; operatives, 13.5 percent; service workers, 14.6 percent; farm workers, 12.0 percent. Educational attainment also strikingly influences the likelihood of migration: among persons 18 years and over, 29.5 percent of those with four or more years of college moved to a different county between March 1970 and March 1975, compared with 16.1 percent of those who had completed only four years of high school and 9.0 percent of those with only eight years of education or less.[30]

This pattern of geographical mobility does not exhaust the character of physical movement in America's past however; transciency was not only intra-continental but inter-continental as well. At least one-third of the new immigrants to the United States from southeastern Europe after the 1880's returned to Europe, and perhaps another third intended to do so upon their arrival in America. During the 1880's return emigration is estimated to have reached 30 percent of total immigration; during the 1890's, 35 percent returned. Between 1901 and 1914, 39 percent returned; between 1914 and 1922, 53 percent returned. For individual nationalities, between 1908 and 1923 almost two-thirds of Rumanians and Hungarians returned; 56 percent of southern Italians, 52 percent of the Russians, 46 percent of the Greeks, 40 percent of the Poles, and 21 percent of the Poles. Moreover, a majority of these returnees did not return only after a year or so; most returned after ten or more years in the U.S. of hard work and frugal saving to purchase a small shop or farm.[31] Nevertheless, this international migration of labor during the late 19th-early 20th century clearly represents the beginnings of "internationalization of labor supply" associated with the expansion of markets in labor.[32]

IV

A second feature of the class structuration of social life was the reshaping of the occupational distribution of the labor force and of distinctive "opportunity structures" and patterns of social mobility.

Due to three principal factors associated with the dynamics of capitalist growth - (1) advances in the technology of production, resulting in increasing levels of productivity (for example, total output increased 178 percent between 1950 and 1973, yet with only an 18 percent increase in production workers);[33] (2) the growth of large corporate and governmental bureaucracies, characterized by a highly complex social division of labor and functional differentiation (technical, sales, finance, research and development, product design, personnel, coordination, etc.);[34] (3) and changes in the sectorial composition of goods and services produced,[35]- the occupational distribution of the U.S. labor force has been radically transformed since the mid-19th century, and still dramatically altered since the early 20th century (see Table 3). Between 1910 and 1980, the proportion of blue collar workers in industry (mining, manufacturing, and construction) increased continuously until the 1930's when they reached a high of 39.8 percent in 1940; by 1980 the proportion of blue collar workers is expected to decline to 33.1 percent. At the same time however, since the 1930's white collar and service employment have replaced industrial blue collar employment as the most rapidly growing occupations in the economy. The precentage of nonmanagerial white collar workers in the labor force quadrupled between 1870 and 1940 from 6.7 percent to 24 percent, and almost doubled again between 1940 and 1972. Agricultural occupations in 1910 accounted for 30.9 percent of the labor force; by 1972

TABLE THREE. THE CHANGING OCCUPATIONAL STRUCTURE OF THE LABOR FORCE[36]

Occupational Group	1910	1940	1960	1972[a]	1980[a,b]	1985[a,b]
Managers, Administrators, and Proprietors (except farm)	6.6%	7.3%	8.5%	9.8%	10.5%	10.3%
White-Collar Workers	14.7	23.8	33.8	38.0	41.0	42.6
Professional & technical	4.7	7.5	11.4	14.0	15.7	16.8
Clerical	5.3	9.6	15.0	17.4	18.7	19.4
Sales	4.7	6.7	7.4	6.6	6.6	6.4
Blue-Collar Workers	38.2	39.8	39.5	35.0	33.1	32.3
Craft workers & supervisors	11.6	12.0	14.3	13.2	12.8	12.8
Operatives	14.6	18.4	19.7	16.6	15.6	15.1
Nonfarm laborers	12.0	9.4	5.5	5.2	4.7	4.4
Service Workers	9.6	11.8	11.7	13.4	13.3	13.2
Private household workers (e.g., maids)	5.0	4.7	2.8	1.8	1.3	1.1
Other services	4.6	7.1	8.9	11.6	12.0	12.1
Agriculture	30.9	17.4	6.3	3.8	2.1	1.6
Farmers & farm managers	16.5	10.4	3.9	2.2	--	--
Farm laborers	14.4	7.0	2.4	1.6	--	--
TOTAL[c]	100.0	100.0	100.0	100.0	100.0	100.0

Notes: [a]Date for 1972, 1980, and 1985 refer to employed persons only. [b]Projections. [c]Individual items are rounded separately and therefore may not add up to totals.

they accounted for only 3.8 percent; meanwhile, service workers increased from 9.6 percent to 13.4 percent, and professional and technical from 4.7 percent to 14.0 percent.

The principal consequence of these changes in the structure of job opportunities was the formation of "opportunity structures" that provided workers from different backgrounds with varying degrees of opportunity to exhibit some degree of career mobility or provided their sons with the chance to be "upwardly mobile." With respect to career mobility, Thernstrom, for example, found that in Boston between 1880 and 1970 about 40 percent of the labor force shifted out of the occupational stratum of their first jobs before the end of their careers; between 20-25 percent moved from a blue collar to a white collar job; most moves, however, were of a "relatively modest" nature, involving one or two steps upward on the occupational hierarchy. Moreover, the rate and pattern of mobility was remarkably stable over time.[37] The Griffens reported comparable findings for Poughkeepsie: within any 10 years no more than 24 percent of the skilled workers could be found in nonmanual work by the end of the decade; for their career as a whole, approximately 33 percent had shifted from manual to nonmanual work. Forty-three percent of the unskilled ended in a higher stratum, 41 percent of the semi-skilled, and 29 percent of the petty white collar beginners. Most movement, however, was small: "most changes occurred between adjacent occupational strata."[38] In Hamilton, Katz found similar trends: most movement, between 71 percent and 88 percent of it, was to the occupational rank immediately adjacent to it. And in changing the focus from occupational rank to type of work (horizontial or functional mobility), Katz found high levels of persistence for stable trades, upper level white collar occupations, and laborers; while much lower rates of persistence characterized the "transitional" occupations and declining trades.[39]

Turning to intergenerational mobility, or the relationship between father's occupation and son's occupation, three studies -- the Griffens', Thernstrom's, and Blau and Duncan's -- all suggest both modest movement and the persistent power of family background to influence sons' occupational destination. In Poughkeepsie the Griffens found that 26 percent of sons of blue collar workers attained white collar status; 22 percent of sons of unskilled or semi-skilled workers attained white collar jobs, 35 percent of them obtained skilled work, and 43 percent attained low manual blue collar work. But while some intergenerational mobility existed, the proportion of the sons of white-collar workers who could expect to begin at that rank themselves was nearly six times as great as the proportion of sons of blue collar workers beginning there; in effect, "social origin profoundly affected initial opportunity."[40] In Boston, Thernstrom calculated that as measured against the status level attained by fathers at the time sons first entered the labor market, between 1840 and 1930, the tendency toward occupational inheritance increased slightly from 40 percent for the 1840-1859 birth cohort and 37 percent for the 1860-1879 birth cohort, to a high of 49 percent for the 1890 - 1930 birth cohort. On the average, about 4 in 10 inherited their occupational positions, but the proportion was much higher for high status jobs: 9 in 10 sons of professionals and substantial businessmen ended up in white collar jobs, 6 or 7 in 10 sons from fathers in low white collar jobs, but only 4 in 10 of sons of blue collar fathers. Alternatively, between 50 and 66 percent of the sons of professionals and prosperous businessmen reached that job level themselves, as opposed to about 15 percent of the children of lower white collar workers, 9 percent of the men of skilled manual origins, and 5 percent of those from unskilled or semi-skilled backgrounds. Yet despite this vast overrepresentation of upper strata fathers' sons in upper strata jobs themselves, almost 50 percent of blue collar boys climbed into white collar jobs; concluded Thernstrom, "the background advantages of men from middle-class families were substantial; opportunities to rise in the world for men from working-class homes were also substantial."[41]

Finally, in a 1962 national sample of four male nonfarm age cohorts, Blau and Duncan estimated simple correlations of .380, .377, .388, and .384 going from youngest to oldest, between father's occupational status and son's first job, a pattern that they interpreted to indicate an expanding "universalism."[42]

All in all, historical research into patterns of intragenerational and intergenerational mobility in America simultaneously indicates clear opportunities for mobility for working class children but at the same time the persistent importance of family background in determining sons' life chances. Moreover, such a conclusion is still warranted even after account has been taken of "structural" mobility. Structural mobility is important because changes in the occupational distribution of the labor force, rather than a looseness of the opportunity structure, account for some proportion of the mobility rate. In other words, patterns of mobility may reflect changes in the supply of particular kinds of jobs as reflected in the occupational distribution of the labor force. One of the major limitations of Blau and Duncan's study of mobility is that they did not measure how much occupational mobility occurred irrespective of changes in the occupational structure, that is, to distinguish between structural and "exchange" mobility. If, for example, the proportion of white collar jobs in the economy rises over time, then it is more likely that more sons of blue collar fathers will climb into those positions. Analyses of exchange and structural mobility have not been undertaken for the economy as a whole, but Thernstrom did attempt to measure the level at which actual mobility exceeded structural mobility in his study of Boston. Using two separate measures, he concluded using one procedure that structural changes accounted for about 20 percent of the total mobility, with a slight tendency toward higher structural mobility over time; on the second measure, the amount of mobility that took place in Boston was roughly 70 to 75 percent of what would have been expected if all sons had enjoyed equal occupational opportunity.[43]

In a perceptive review of Thernstrom's research on mobility, and indeed of mobility research generally, Samuel Hays puzzled over Thernstrom's conclusion that the opportunity structure in Boston had exhibited "an element of remarkable, almost eerie, continuity."[44] Hays wondered why Thernstrom had not investigated this stability and continuity, and concluded that Thernstrom had treated social structure as an independent rather than a dependent variable. Hays did not speculate about the reasons for this failure, but a number might be proferred. Perhaps the fundamental reason resides in Thernstrom's nominalistic conceptualization of social structure itself. Thernstrom's conception of social structure is based on functionalist stratification theory: social structure is the opportunity structure. Class is designated by occupations; class mobility happens when a worker -- or his son -- shifts from a blue collar to a white collar job. But for both theoretical and empirical reasons it makes much more sense to conceptualize social structure as a structure of social relations and processes, to view class in terms of structural relationships to the means of production, that is, to the social division of labor, and to understand the opportunity structure as a reflection of the *technical* division of labor. From this perspective, class designates positions in the social relations of production, whereas "occupation" -- the backbone of mobility studies to date -- designates positions within the technical division of labor. A census manuscript designation of a man's occupation as shoemaker tells us the nature of his occupation, but it does not tell us whether he was a self-employed craftsman or a wage earner in a factory. Mobility patterns using occupational categories thus reflect nothing directly about the class relations of a society, but reflect the character of the technical division of labor. This is not to suggest that the social relations of production and the technical division of labor are unrelated, nor that the structure of class relations is unconnected to the opportunity structure, for in a very important sense they are, in that the social relations of production basically shape the form of the technical division of labor and the process of industrialization.[45] A study of opportunity and mobility that based its analysis upon class (structurally defined) rather than occupation (or class nominalistically defined) could thus tell us something about the influence of class upon opportunity structures and mobility patterns. Studies utilizing occupation as the independent variable on the other hand reflect the impact of the technical organization of production within occupations upon the opportunity structure.

Several very good empirical studies bear these theoretical contentions out. A study, for example, by Katz, Stern and Doucet highlights the theoretical advantages of a structural approach to American social structure. Using a two class model to analyze the social structure of Buffalo in the late 19th-early 20th century, they argue that, uniformly, differences between classes on critical measures of behavior (education, fertility, homeownership), economic rank and mobility were much greater than differences within classes (differences between occupations within a class). The obvious conclusion is the greater theoretical power of a structural conception of class rather than a nominalist definition based upon occupation to explain significant 19th century social behavior.[46] In another study by Wright and Perrone, a similar structural definition of class -- emphasizing relationships to ownership and control of the means of production -- was used to study the relationship between education and income. Using 1969 and 1973 data, they developed a fourfold class typology -- workers, managers and employers and petty bourgeoisie -- and measured, using multivariate procedures, the relative ability of class as opposed to occupation to explain differences in the education-income relationship. They found that returns to education within the managerial category are much greater than within the working class category; that even when education, occupational status, age and job tenure are controlled for, employers have greater income than either managers or workers; the returns to education for small employers are much greater than for workers and managers; that class differences between workers and employers are considerably greater than the differences between men and women or between blacks and whites within the working class; that within class categories, races and sexes appear to have very similar returns to education.[47]

Other studies with a slightly different focus provide empirical support for the argument that mobility patterns using occupation as an independent variable reflect not so much the "openness" of the class structure the impact of industrialization upon the technical division of labor, and for the argument that the overall impact of the transformation of the technical organization of production has been to consolidate the class divisions within the society,

irrespective of their particular contingent impact upon the opportunity structure.

In, to date, the most careful and sophisticated study of opportunity and mobility, the Griffens closely studied the opportunity structure and mobility patterns of a diverse range of occupations and industries. They found that opportunity structures and mobility patterns varied remarkably between expanding and contracting occupations or trades, with expanding trades exhibiting greater opportunities and higher rates of mobility. But they also found that the process of skill dilution and mechanization cut across the distinction between expanding and contracting trades, and that in general terms, mechanization and the technical division of labor reshaped the overall structure of opportunities and mobility patterns. Increasingly, mobility into self-employment disappeared as a form of mobility: "skilled manual workers would never again have as much opportunity within their own careers to become. . . . self-employed." Consequently, the "meaning of opportunity for craftsmen" changed, as "traditional differences between the artisan and ordinary laborers narrowed and distinctions between the artisan and the emerging class of factory operatives became less clear."

They go on to point out that "the narrowing differences between strata within the manual world in frequencies of achieving nonmanual work, primarily self-employment, during the middle decades showed that the old sharp division in opportunity between artisans and laborers had been blurred just as skill dilution had diminished the differences in their work. In an age of increasing scale and specialization the usual ceiling for the occupational mobility of skilled workers lowered as that for less skilled workers lifted somewhat; increasingly both came to occupy a common working-class world." Similar conclusions, they note, were reached by the Lynd's in their study of Muncie.[48]

The Griffens' judgment that a proper understanding of opportunity structures and mobility patterns can only be gleaned on an occupation by occupation basis is also echoed by Laurie, Hershberg and Alter in their study of Philadelphia between 1850 and 1880. Indeed, they go even further than the Griffens, for on the basis of their findings, they question the adequacy of commonly used occupational categories in mobility studies and therefore their very meaningfulness. They agree with the Griffens, on the basis of a firm by firm analysis, that industrialization, through the reorganization of work and the introduction of labor saving technologies, transformed occupational patterns: "industrialization shifted the distribution of occupations within the occupational hierarchy." But this is not all that they found: they also discovered the existence of considerable variations in the objective conditions of skilled occupations within any single category, that the lines separating skilled from unskilled blurs when one considers firm size and industry type, and that often the best work settings in terms of career opportunities, security, working conditions and wages were not in small shops but in factories. In fact, so considerable were the variations in wages paid to workers, both within skill categories and between skilled and unskilled categories, that the authors questioned the empirical validity of most occupational ranking schema. They concluded that mobility studies in the future will need to commence with detailed studies of work settings and work content before they proceed to the actual study of mobility patterns.[49] It appears that the organization of the work process is at the root of opportunity structures, and as we shall see shortly, labor markets as well.

V

One of the significant ways in which Middletown isn't America, at least northeastern urban America after the 1890's, was in the low proportion of foreign born immigrant groups in Middletown. For America as a whole, however, between 1840 and 1880 an average of 2.4 million immigrants arrived in America every decade. During the 1880's over 5.2 million immigrants arrived, and another 8.8 million between 1900 and 1910. For the 40 year span between 1880 and 1920, almost 23.5 million immigrants arrived in America -- although as noted earlier, not all settled here permanently. By far the largest majority lived in cities (75 percent in 1920) and worked as wage earners as semi-skilled or unskilled laborers.[50]

In making this transition from Middletown to America, the important question is how, and in what ways, is ethnicity significant to understanding the American social structure. Is it a mediation of the relationship between class and social structure, or is it an alternative to class as a way of characterizing the structuration of social life in America? Can we conclude, with Ericksen and Yancey, for example, that "emergent ethnicity" better describes the nature of the immigrant experience in America, or should we view it as a process of class formation in which an American working class developed, but one internally differentiated along ethnic-cultural lines?[51] In what ways and how are we to explain the development of ethnic educational aspirations and behavior?

In explaining the immigrant experience in America, two major approaches have been adopted:assimilation theory and pluralist theory. Assimilationists, deriving their theoretical models from the Chicago School of Sociology, view America as a melting pot that destroyed ethnic differences; pluralists assert that the immigrant experience should be characterized less by assimilation than by the persistence -- even strengthening -- of ethnic loyalities. The pluralist position gained conceptual support from Milton Gordon's contention that while it seemed to be true that the immigrants were "acculturated" ("behaviorally assimilated"), they nonetheless were not "structurally" assimilated in that they continued to maintain distinct subsocieties based on intraethnic marriage; and Ericksen and Yancey's recent discussion of "emergent ethnicity" provides further support of a pluralist position of Gordon's kind.[52] To some extent this argument goes some distance in explaining what might otherwise appear as a paradox in so called "ethnic studies." For on the one hand, researchers have noted that for a whole range of social behaviors -- school attendance, fertility, age of marriage, homeownership, associational activities -- ethnic differences disappear pretty quickly as a source of variation in such behaviors, leaving class (whether conceptualized in structural or nominalistic terms) as the major source of behavior differences.[53] On the other hand, they have noted the development of strong ethnic communities in America and the existence of distinctive patterns of ethnic stratification in the labor market and opportunity structures.[54] But rather than viewing these communities as expressions of an "emergent ethnicity," it makes more sense to view them as reflections of the process of class formation, the consequence of which was an ethnically-differentiated working class culture.[55]

The sources of the formation of an ethnically-differentiated working class culture are in the nature of class relations in America, and the stratification of its labor markets and of its opportunity and ecological structures. Above all else it was a question of the efforts of immigrants to cope with the viscissitudes of daily life in a wage labor society; Alan Dawley put it well in describing the response of immigrants to their class experiences as wage earners in America: "The experience of industrial employment -- its privation, fatigue, risk of injury as death, ceaseless insecurity -- compelled working people, in the absence of social supports to ease these hardships, to develop collective supports of their own. They created fraternal lodges, church burial funds and union benefit societies . . ."[56] Whatever their ethnic affiliations, immigrants created common working class institutions, developed similar aspirations, behaved in parallel ways. While the content of the American working class varied by ethnicity, the forms of the culture they created were similar, for the very good reason that they encountered similar structural conditions that shaped the process of cultural formation. The cultures immigrants made were creations of the new world, not the old; immigrants did not import their "ethnicity" with them in their suitcases or in their heads; rather, in confronting the kinds of structural conditions that they did in America, they created ethnic class cultures. As Ericksen and Yancey point out, " . . . much of the substance of ethnic cultures may be the result of a selective process which consists of a constantly evolving interaction between the nature of the local community, the available economic opportunities and the national or religious heritage of a particular group . . . much of the behavior that is commonly associated with ethnicity is largely a function of the structural situations in which groups have found themselves." Ethnicity "is generated and becomes crystalized under conditions of residential stability and segragation, common occupational positions and dependence on local institutions and services." Consequently, it is only "within the structural parameters characterising urban working class life generally" that ethnic cultures crystallize and persist.[57]

South Chicago is a case in point. Here the steel mills dominate not only the skyline and work but the very texture and rhythms of neighborhood and community life. When William Kornblum went to live in the steel mill area in the late sixties, he found that "from the first day in the steel mill it was clear that it would be impossible to understand the community as its people without working in the mills." As he did so, he learnt much:

> Within a week all the comings and goings of humans, railway cars, and boats became intelligible; the open spaces and cramped neighborhoods fit patterns of land use determined by the steel industry; the temporal patterns of street life could be explained by the cycle of mill life; and the material life style of various neighborhoods fits patterns of seniority and skill inside the mills. In their leisure lives outside the mills, South Chicago families could attempt to segregate themselves within ethnic cultural worlds, or they might associate with diverse groups of neighborhood friends, but in every case ethnic segregation was limited by the more universalistic experiences of life on rolling mills, blast furnaces, coke ovens, ore docks, and the switchyards of the steel industry.[58]

So, on the one hand, while Kornblum found that associational life -- street corner primary groups, landsmannschaften, tavern friendships and patronage patterns, parish churches, fraternal benefit societies, precinct organizations and union caucases -- segmented into a "structure of equivalent ethnic primary groups," he also found that "whatever their ethnic affiliations, South Chicago people share the common culture of working class America," and specifically the culture shaped by the steel industry: "steel making brings South Chicago people together in the world of work. Steel presents all the ethnic groups with similar life chances and common aspirations for future generations."[59] In particular, the organization of the work process and the ethnic stratification of the labor force shaped both the process of working class cultural formation and its internal differentiation along ethnic lines. Ethnic and occupational attachments depended upon the social and ecological organization of work and recruitment patterns; conflict or cooperation between mill work groups for example was "one of the primary explanations of tavern association outside the plant."[60] In general,

> In a typical mill neighborhood . . . bonds between people formed at work are carried into the outside neighborhood. Friendships and animosities formed in the steel mill interact with ethnic and residential attachments to create a neighborhood ecology of primary groups. These primary groups, in turn, create the institutions of the neighborhood, its church congregations, its tavern cliques, and its political associations. The membership of the groups reflects a range of individual solutions to the dilemma of ethnic isolation versus occupational integration. These primary groups, in which the members 'reconstruct' a history emphasizing commonality rather than differences, may then be enlisted into broader aggregations which are negotiated in the political organizations of the workplace and the community.[61]

Studies of immigrant mobility patterns provide additional support for such an explanation of the immigrant experience, for without exception they conclude that immigrants and natives experienced different rates and forms of mobility. The Griffens found quite high levels of career and intergenerational mobility for Germans and British immigrants in Poughkeepsie, even achieving self-employment in the skilled crafts, especially in the food and apparel trades (as compared with native predominance in the construction and industrial trades where self-employment was less common). But they also found that opportunities, even for self-employment, were strikingly stratified by ethnicity. Immigrant self-employment occurred predominantly in marginal neighborhood ventures, and they "tended to predominate in crafts and factories with lower wages or less attractive working conditions," particularly in those jobs requiring least skill (a fact obscured in most mobility studies by aggregating these jobs as unskilled or semi-skilled).[62] Thernstrom, in his study of mobility, found similar results, concluding that despite some narrowing of the gap between immigrants and natives over time, particularly for second generation sons, there were nonetheless "sharp ethnic differences in economic opportunity," with immigrants faring much less well than natives in the occupational competition. And despite the fact that second generation sons did better than their fathers, they still did not do as well as natives, even controlling for class, suggesting that they were clearly locked into particular labor markets with limited opportunity structures.[63]

Other research -- by Katz on Hamilton and Boston; Laurie, Hershberg and Alter on Philadelphia; Ericksen and Yancey on Philadelphia; and

Barton on Cleveland -- all come to essentially similar conclusions.[64] Labor market stratification by ethnicity, if South Chicago is representative of the process of class formation, ensures that ethnicity becomes an important locus of experience and a key to the process of class formation.

Two other points in this connection are noteworthy: the finding, first, that blacks and immigrants have faced very different opportunity and ecological structures in American cities. The mobility paths open to immigrants have not been available to blacks; the experience of blacks can not then be conceived in terms of the "last of the immigrants" theory.[65] The second point is that the formation of immigrant (and working class in general) educational aspirations can best be understood in the crucible of class experiences -- their experiences at work, in the community, in the church, in the political party, and so on -- and not in terms of some process of embourgeoisement. Working class educational aspirations and behavior were not so much an emulation of middle class ideas and behaviors but accommodations, usually mediated by cultural differences, to the contingent facts and vicissitudes of their daily existence: their position as wage earners, the nature of opportunity structures encountered, the character of their work, the importance of their religion, the process of community development, etc. In this context, educational behavior was but one of a matrix of behaviors involving homeownership, child labor, fertility patterns, marriage formation, and working wives within the family economy of the immigrant working class.[66]

VI

To explain away what might otherwise also appear as a paradox -- the simultaneous existence of moderate or even high levels of mobility and at the same time the persistent and powerful influence of family background upon occupational attainment -- researchers have looked to educational achievement as the linking mechanism between family background and occupational attainment. Family background, so the argument goes, matters less and less as education becomes increasingly important in the determination of occupational attainment. Thus, Blau and Duncan, in their study of social mobility, conclude that since education was the single most important determinant of occupational attainment, the major source of upward mobility in America was not so much due to the push factor of extensive immigration, or the decline in differential fertility, or techological progress, but to "expanding universalism." "Objective criteria of evaluation," they argue, "that are universally accepted increasingly pervade all spheres of life and displace particularistic standards of diverse ingroups, intuitive judgments, and humanistic values not susceptible to empirical verification." They go on:

> Heightened universalism has profound implications for the stratification system. The achieved status of a man, what he has accomplished in terms of some objective criteria, becomes more important than his

> ascribed status, who he is in the sense of what family he comes from. This does not mean that family background no longer influences careers. What it does imply is that superior status cannot any more be directly inherited but must be legitimated by actual achievements that are socially acknowledged. Education assumes increasing significance for social status in general and for the transmission of social standing from fathers to sons in particular. Superior family origins increase a son's chances of attaining superior occupational status in the United States in large part because they help him to obtain a better education, whereas in less industrialised societies the influence of family origins on status does not seem to be primarily mediated by education.[67]

While there is much in this view that is born out by the historical record, the record is not as clear cut as Blau and Duncan suggest, and there are important conceptual and theoretical issues that their argument glosses over.

If we first take the relationship between family background and educational achievement, the evidence is conflicting. Some researchers have found evidence of the substantial impact of family background upon educational achievement; others find none or little. Thus, on the one hand, in a study of Hamilton during its early industrialization between 1851 and 1871, Katz and Davey discovered that educational behavior progressively bifurcated along class lines, and that ethnicity mattered less over time;[68] Jensen and Friedberger in a study of Iowa at the turn of the century concluded that despite substantial "openness," family background did matter;[69] Bowles and Gintis argue that educational achievement is strongly dependent on social background, even for people of similar childhood IQs -- indeed, they conclude, contrary to the hypothesis of "expanding universalism," that "the number of years of school attained by a child depends upon family background as much in the recent period as it did fifty years ago."[70] On the other hand, Blau and Duncan, and Sewell and Hauser argue that socio-economic factors by themselves do not explain very much of the variance in educational achievement, and that in all probability, ability or intelligence is the primary determinant of educational attainment.[71]

A similarly ambiguous situation characterizes the state of research findings concerning the relationship between educational achievement and occupational attainment. Katz and Davey found that school attendance exerted no influence upon occupational attainment for young men during the first stages of industrialization in Hamilton; Jensen and Friedberger discovered that the impact of education upon occupational attainment varied between groups; Griffen and Griffen calculated that for the majority of male children, school attendance short of high school probably had little impact upon their subsequent mobility in occupation or property, though for sons of fathers who already had some advantages in property and occupation, prolonged schooling provided distinct advantages. As they put it, "the high school provided an easier avenue of ascent for the children of families already in the process of improving their position or helped preserve the advantage of families already established but not too firmly."[72]

When one turns to later periods, however, the association between education and occupational success is much more dramatic, but interpretations of the causal linkage vary and scholars differ in their assessment of the significance of family background. Blau and Duncan argue that "a man's social origins exert a considerable influence on his chances of occupational success," but that his own education and his early job experiences "exert a more pronounced influence on his success chances." They point out that the zero order correlation between occupational success is the highest for education (.60), and lower for other variables (.32 for father's education, .40 for father's occupation, and .54 for first job). They conclude that "although most of the influence of social origins on occupational achievement is mediated by education and early experience, social origins have a continuing impact on careers that is independent of the two variables pertaining to career preparation. Education exerts the strongest direct effect on occupational achievements (the path coefficient is .39) with the level on which a man starts his career being second (p = .28)."[73]

Other studies in various ways either confirm or conflict with Blau and Duncan's findings, and their interpretation of the causal relationship between family background, educational achievement, and occupational attainment. Although Jencks went to great pains to demonstrate that education is a relatively modest determinant of adult success, his own figures belie his argument, and tend to support Blau and Duncan's position. Arguing that education left more than half of the variance in occupational attainment unexplained, Jencks downplayed -- unjustifiably by most canons of statistical reasoning -- the high correlation of .65 between education and occupational status.[74] Moreover, as Boudon points out, relationships that are objectively indeterminate for the individual may be anything but from the point of view of the functioning of the social structure: for example, correlations between education and occupation may be partially influenced by changes in the occupational structure that create a disjunctive between the systems of work and education.[75] (This is an extremely important point and one to which I shall return subsequently, since it highlights the importance of structural factors in shaping the form of the status attainment process.) Bowles and Gintis take a different tack. They point out that while educational achievement is highly correlated with occupational attainment -- for example, an individual in the ninth educational achievement decile has a 34.3 percent chance of attaining a position in the top fifth of income earners, while an individual in the bottom decile in education has only a 3.5 percent chance -- they nevertheless argue that the relationship cannot be explained by cognitive ability (IQ), for when IQ is held constant, it barely alters the statistical relationship. Thus, a person in the ninth decile in education is nearly 10 times as likely to be in the top quintile in income as is a person from the bottom education decile, a relationship that basically holds even with IQ held constant: among people with identical adult cognitive test scores, the former is still 8 times more likely to be in the top income quintile than the latter. They therefore conclude that economic success tends to run in the family "almost completely independently from any inheritance of IQ, whether it be genetic or environmental."[76] Finally, Sewell and Hauser argue, following Blau and Duncan, that higher education is an important determinant of occupational success, that father's occupational status still directly affects son's occupational status, and that, contrary to Bowles and Gintis, cognitive ability does matter, and matter a great deal.[77]

Yet despite the apparent confusion, all is not lost, for a closer look at the literature indicates at least four points at which the relationship between education and status attainment suggests the possibility of constructing a coherent theoretical explanation of the status attainment process: (i) the character of the linking mechanisms between family background, educational achievement, and occupational attainment; (ii) the formation of working class educational expectations and the character of their educational behavior; (iii) the relationship between education and a central aspect of the status attainment process, income inequality; and (iv) the structural relationships between work and education. Each of these topics, except the second, will be considered in the remaining parts of the paper; the second, the formation of working class educational aspirations, I have discussed elsewhere.[78]

The most influential explanation of the observed relationships between socioeconomic background, educational achievement, and occupational attainment is the so-called "Wisconsin model" developed by Sewell, Hauser and others in an attempt to explain the model of the status attainment process formulated by Blau and Duncan. In Blau and Duncan's basic model, occupational attainment is mostly influenced by educational attainment, while most of the effects of socioeconomic status and ability on occupational attainment are mediated through educational attainment. In the expanded Wisconsin model attention is focused on explaining the relationship between socioeconomic origins and ability on the one hand and educational achievement on the other. The model does so through "three sets of social psychological intervening variables: (a) high school performance, (b) significant others influence, and (c) educational and occupational aspirations."[79] Sewell and Hauser argue that parental aspirations and student aspirations both have important effects on educational attainment even when socioeconomic status and ability are controlled. Aspirations were not as important as the effects of ability, but high aspirations strongly affected the probabilities of remaining in high school until graduation or college attendance. In other words, apart from ability, the link between socioeconomic origin and educational attainment was to be found in the socialization process, with the family and the school as the principal institutional settings of the process of socialization.

The Wisconsin Model is less than convincing, however, in its explanation of educational achievement. To begin, little clear evidence exists to show that differential aspirations constitute a major part of the explanation of why working class and black students do relatively badly in school; for instance, there is some evidence that black educational aspirations were and are higher than white educational aspirations after controlling for socioeconomic status.[80] But more importantly, the variable "educational aspirations" is poorly conceptualized. It is based on the answer to a simple question put to the students in the spring of their last year in high school: Did he or she plan to attend college in the fall? Since most students know by this time whether or not they will go to college, it is clearly misleading to call this "educational aspiration" let alone to use it as a predictor of educational attainment. It would be far more appropriate to call the variable "plans" or "expectations" rather than "wishes" or "aspirations," a point which raises another important question. For as Kerckhoff pointed out, the measures of ambition used by the Wisconsin school do not so much measure motivation as "knowledge of the real world."[81] The Wisconsin school in effect failed to make a crucial distinction between "wanting" something and "expecting" something; "aspirations" are strongly associated with educational achievement because adolescents, as they become sufficiently knowledgeable about the world to be able to estimate the probabilities of various outcomes, adjust their "aspirations" accordingly.[82] Status prospects play an important role in regulating ambition. Everyone may want the same outcomes, but people at different levels of the stratification system learn to expect different outcomes. This suggests, as Spaeth recently pointed out, that measures of occupational and educational aspirations and expectations may actually serve as surrogates for the selection process in schooling.[83] A similar inference has been drawn by Bourdieu in his discussion of the influence of "class ethos" upon academic performance.[84] The outstanding analysis, however, of the process through which expectations are formed is Paul Willis' ethnographic study of the process of "self induction" by working class boys into working class jobs, a process that he brilliantly links to wider class-cultural processes and conflicts involved in the reproduction of working class cultures.[85]

A second difficulty with the Wisconsin model is that it is not specifically focused on particular qualities related to success in school. More rewarding are approaches that try to link particular qualities learned in the family to particular qualities related to success in schools. A considerable amount of recent research suggests that family or class background dramatically affects linguistic patterns and learning styles that are either positively or negatively related to performance in schools.[86] In addition, some researchers have attempted to explicitly link particular qualities transmitted by families to particular qualities demanded by schools.[87] Even more interesting, however, is the research of Melvin Kohn and of Bowles and Gintis, for it provides a key link between the organization of work, family culture and socialization practices, and school performance.

In series of major studies Kohn was able to document important relationships between the social relations of production and the social relations of family life and child rearing practices of different groups. Kohn found that personality traits and individual values affect subsequent economic position. Conversely, job experiences strongly affect personalities and values, which in turn affect child rearing practices. He discovered a clear differentiation of values and personality traits (particularly with respect to self-direction and conformity) systematically related to job experiences. The key variable was occupational self-direction (i.e., the nature of the task structure). Finally, in two further studies, one a large national sample, Kohn was able to describe the impact of work related experiences and values in child rearing practices: about two-thirds of status related differences in child rearing practices were directly related to the extent of occupational self-direction. Indeed, as a predictor of child rearing values, the structure of work organisation clearly overshadowed other variables such as occupational prestige or educational level.[88]

Other more descriptive evidence supports in a general way Kohn's conclusions;[89] in addition, acknowledging their debt to Kohn's work, Bowles and Gintis were able to show that systematic connections existed between personality traits and values of school performance;[90] Edwards successfully related these traits and values to success at work;[91] and Collins demonstrated the existence of strong systematic relationships between differentiated status cultures taught at different schools and occupational attainment.[92]

Dissatisfied with different aspects of the socialization model of educational attainment, a disparate and heterogeneous group of scholars have developed a number of alternative approaches to the status attainment process. However, they do have two points in common: Firstly, they all in their own way reject the Wisconsin assumption that schooling is an unstructured open market in which the major determinants of attainment are motivation and ability, and secondly, they each focus upon the consequences of the sorting and selection process in schools for the status attainment process.

The rejection of the Wisconsin assumption of the school as an open market of ability and motivation has taken several forms. One group -- discussed previously -- rejects the validity of the Wisconsin conceptualization of motivation. They argue that the Wisconsin model fails to make a crucial distinction between expectations and aspirations, and hence profoundly underestimates the effects of socioeconomic background on educational attainment. Another group of scholars -- Bowles and Gintis in particular -- have attacked the assumption that ability, as measured by scores of standardized tests -- is the predominant determinant of educational achievement and economic success. Others, like Kerckhoff, point out that in the Wisconsin socialization model about one-third of the effect of socioeconomic status on educational attainment remains even after grades in school, the influence of significant others, and educational expectations are included in the model, and that less than half of the effect of father's occupation on son's occupation is mediated by all of the other variables in the model. In effect, the Wisconsin socialization model does not fully explain the relationship between origin and attainment.

In attempting to explain the existence of such anomalies, different scholars have pursued different strategies. One major research focus has been on the development of organizational mechanisms within schools -- internal stratification systems -- particularly tracking -- which sort and select students into differentiated curricula and thence into different positions in the social division of labor.[93] A related research focus has been on the nominal relationships between socioeconomic background, curriculum tracking, and educational achievement. On investigating the relationship between socioeconomic status and curriculum placement, Heyns concluded that socioeconomic status was largely irrelevant to curriculum placement, but that curriculum enrollment itself was indeed an important determinant of educational attainment.[94] Subsequent research has confirmed the latter finding but not the first. Contrary to Heyns, socioeconomic status is strongly associated with curriculum placement.[95]

VII

One of the more sobering set of statistics to confront already dour theorists of human capital in recent years concerns the aggregate relationship between income inequality and educational achievement. During the course of the 20th century the size of the gap between the least educated (in terms of years of schooling) and the most educated has progressively diminished, yet simultaneously, contrary to what theorists of human capital would have predicted, a concomitant reduction in the size of the income gap between the richest and the poorest has not materialized. In effect, the reduction in the inequality of years of schooling has not been matched by an equalization of the income distribution.[96] Lester Thurow, for example, points out that in 1950, the bottom fifth of the white male population had 8.6 percent of the total number of years of education, while the top fifth had 31.1 percent. By 1970, the share of the bottom fifth had risen to 10.7 percent and that of the top fifth had dropped to 29.3 percent. But instead of this equalization of educational achievement generating an equalisation of income distribution, in fact the distribution of income among white males became even more unequal. Between 1949 and 1969, the share of total income going to the lowest fifth dropped from 3.2 percent to 2.6 percent, while the share going to the highest fifth rose from 44.8 percent to 46.3 percent.[97] Moreover, Mincer and Chiswick estimated that a significant reduction in school achievement would only reduce income inequality by a negligible amount even if other offsetting factors are removed[98] (see Tables 4 and 5). Black/white income gaps also reveal the same discrepancy. Between 1952 and 1968, the mean education of black male workers rose from 67 percent to 87 percent of that of white male workers (a 29 percent increase) yet median wage and salary incomes rose only from 58 percent to 66 percent, an increase of only 13 percent; moreover, most of this increase could be attributed to black emigration from the South, with its lower relative incomes for

TABLE FOUR.[99] DISTRIBUTION OF EDUCATION AMONG ADULT WHITE MALES

	Percentage share of years of educational attainment 1950	1970
Lowest Fifth	8.6	10.7
Second Fifth	16.4	16.4
Middle Fifth	19.0	21.3
Fourth Fifth	24.9	22.3
Highest Fifth	31.1	29.3

TABLE FIVE.[100] DISTRIBUTION OF INCOME AMONG ADULT WHITE MALES

	Percentage shares of total money income 1949	1969
Lowest Fifth	3.2	2.6
Second Fifth	10.9	9.4
Middle Fifth	17.5	16.7
Fourth Fifth	23.7	25.0
Highest Fifth	44.8	46.3

blacks.[101]

A number of possible explanations could be offered to explain this state of affairs. For theorists of human capital, it is a very large and very disconcerting anomaly, but other scholars view it less as an anomaly than as a structural characteristic of the economy. How this is to be understood, however, is far from a simple matter. For example, while the Wright and Perrone analysis is a convincing description of the pattern of inequality along class lines, it is not an explanation of the specific structural mechanisms supporting this pattern of inequality. A number of alternative explanations might be advanced, although with varying degrees of success. One possible explanation, developed by Raymond Boudon, while focused in the first instance upon the distribution of occupational positions rather than income, might nevertheless be construed as an explanation of the structural relationships between education and economic inequality, since for Boudon the key question in explaining the relationship between education and income is whether the expansion in rates of school attendance and the decrease in educational inequality brings about a decrease in inequality of social opportunity, i.e. social mobility.

For Boudon the expansion of education is generally consistent with a high level of stability in the mobility structure. This is because the growth in the number of high status positions has not been commensurate with the expansion in the supply of educationally qualified individuals, so that the occupational chances of persons at lower levels of education decrease as the supply of educationally qualified persons outstrips the demand for them. Those with the highest levels of educational achievement retain their traditional advantage, but for groups below these, occupational opportunities decline at immediate levels of schooling, so that potential status gains through increased schooling are lost through declining occupational opportunities. Consequently, the pattern of social mobility remains unchanged by increases in educational achievement.[102]

While the problem which Boudon is concerned with is a real enough one -- there is ample evidence that the expansion of educational achievement has not been matched by a decline in inequality --and it is certainly plausible that the expansion of educational achievement has not entailed a reduction in inequality of opportunity, there are difficulties in Boudon's explanations of these issues. Robert Hauser has outlined some of the logical, factual and theoretical problems with Boudon's model of the relationship between education and social structure,[103] but rather than summarily dismissing this approach, other lines of argument are worth considering. One such suggested by Ralph Collins -- argues not, per Boudon, that there is no reason to expect an increase in social mobility or equality even if one assumes a decrease in inequality of education -- than that an expansion of educational achievement on the part of less educated groups will not result in an increase in social mobility if groups with higher levels of educational achievement are able to maintain a relative advantage over the less educated groups.[104]

Collins' approach is based upon a Weberian theory of status competition. He proposes that competition and conflict between status groups generates increased demand for schooling that has little or no relationship to skill requirements in the economy. People desire education because they desire status, and they believe that education is the means of attaining it. Low and middle status groups will thus seek to raise their relative position in the competition for status. And since educational qualifications both symbolize high status and are instrumentally important in achieving such status, these low and middle status groups attempt to achieve more educational credentials. But, of course, to the extent that such groups are able to increase the levels of their educational qualifications -- for example, from five to seven years -- high status groups will seek to preserve their relatively more privileged position. High status groups will raise their educational qualifications in an effort to maintain their position. In response, low status groups attempt again to close the gap. And so on in a continuous spiral. The effect has been to increase the supply of educated labor; this in turn has allowed employers to continuously upgrade educational requirements of jobs that to all intents and purposes have not changed in their objective skill requirements: thus the credentials gap noted by Berg.[105] Surplus cognitive skills are produced in excess of the demand for them: an imbalance between the demands of the economy and the supply of educated labor appears. The expansion of educational achievement thus does not necessarily decrease inequality of opportunity: high status positions are still out of the reach of most low status groups, although they have acquired levels of educational achievement which in earlier periods would have entitled them to such positions. On such grounds one could thus explain the current loss of faith in education represented in the titles of two recent books: The Case Against College and The Over-educated America. For on Collins' account, confidence in education as a means of social mobility has decreased as the inflation of educational credentials has undermined their value, and as employers have begun to believe that job specific training rather than educational credentials is a better way of acquiring high performance workers.[106]

To some extent Collins' position can be supported by what Lester Thurow calls a "job competition" model of the relationship between education, work and inequality. For Thurow, the American economy is characterized less by wage competition (as theorists of human capital assume) than by "job competition." Instead of people looking for jobs, there are jobs looking for "suitable" people. In a labor market based on job competition, an individual's income is determined by (1) his relative position in the labor queue and (2) the distribution of a job opportunities in the economy. Wages are thus based on the characteristics of the job, and workers are distributed across job opportunities on the basis of their relative position in the labor queue. Although education can affect the shape of the labor queue, this does not mean that it changes the distribution of income, since this is a function, not only of the labor queue, but also of the distribution of job opportunities.[107]

This is a provocative argument, with important implications for understanding the function of education in the economy. Thurow summarizes the implications this way: "In a labor market based on job competition, the function of education is not to confer skill and therefore increased productivity and higher wages on the worker; it is rather to certify his 'trainability' and to confer upon him a certain status by virtue of this certification. Jobs and higher incomes are then distributed on the basis of this certified status."[108] In other words, the labor market is not primarily a market for matching the demands for and supplies of different job skills (acquired in school, for example), but for matching trainable individuals with training ladders: "Since most skills are acquired on the job, it is the demand for job skills which creates the supply of job skills." Employers attempt to pick and train workers to generate the desired productivity with the least investment in training costs. For new workers and for entry level jobs, it is the "background characteristics" of the workers -- their age, sex, race, ethnicity, educational attainment, previous skills, etc. -- that form the basis of selection. The "national labor queue" thus depends upon the distribution of these background characteristics and upon employers' ranking of different background characteristics; and to the extent that education is an important characteristic for "screening" individuals, alterations in the distribution of education can influence the shape of the labor queue, although not necessarily the distribution of income, since this is also determined, perhaps even principally, by the distribution of job opportunities.

At this point of the argument, however, both Thurow and Collins have to be shelved, in Collins' case because his theory of "status competition" simply does not provide any explanation for the distribution of job opportunities in the economy, and it fails to supply an adequate account of the shape of the labor queue. Thurow has similar difficulties. A number of economists have observed that job opportunities are not homogeneous across the labor market, and indeed that different kinds of job opportunities cluster together in different -- or stratified -- labor markets: secondary, subordinate primary, and independent primary.[109] Moreover, the returns to education within each labor market are strikingly different. Buchele found, for example, that for workers in secondary labor markets (those characterised by low-skill jobs, low pay, no job security, high turnover, and few chances of advancement), there was some slight benefit for each year of schooling achieved, but that they received no additional returns for any further schooling. Osterman calculated that the effect of education in increasing earnings was 4 to 6 times greater for workers in primary labor markets (those characterised by job security, relatively stable employment, higher wages, and extensive linkages between successive jobs that the typical worker holds) than for workers in secondary labor markets. Similar results were obtained by Gordon, and by Carnoy and Rumberger. In subordinate primary labor markets (jobs of the traditional industrial working class, i.e. production jobs in the unionized mass production industries) each year of schooling gives the average subordinate primary more than a 6 percent raise, whereas secondary market workers receive about 1.5 percent. College education -- at least for the first three years -- also paid off in higher returns, but the highest returns were for secondary schooling. Finally, in independent primary markets (jobs, which, like those in the subordinate primary markets, offer stable employment with considerable job security, established patterns of career progression, and relatively high pay, but in addition, involve general rather than firm specific skills, career ladders, nonmanual work, require skills obtained in advanced or specialized schooling, often require educational credentials, and are likely to require occupational or professional standards of performance), each year of schooling increases the average worker's annual earnings by 10 percent; Buchele estimated that each year of schooling after college generated an extra $3000 p.a. in income for supervisory workers. Large returns were common at other levels as well, particularly college.[110]

There is convincing evidence then that labor markets are stratified according to the character of job opportunities available, and that rates of return to education vary dramatically between labor markets. The fact that educational equalization has not been matched by income equalization might thus be explained in terms of the disproportionate concentration of the improvement of educational achievement among workers in secondary labor markets, and indeed that no amount of educational upgrading in these markets could improve income distribution since it is not the amount of education that determines the income share, but the character of the job and the labor market.

The effects of the stratification of the labor market upon income distribution are compounded by the effects of labor market segmentation -- the division of labor markets horizontally by race, sex, age, and ethnicity. These divisions in the labor force segment the national labor queue into different groups; transcending the stratification of the labor market, with blacks, hispanics and women clustered into secondary labor markets,[111] continuing the pattern of ethnic stratification of labor markets established in the 19th century. Returns to education for blacks , for example, are significantly lower than those to whites, even within the same segmentated market.[112]

The standard or neoclassical explanation of income discrimination is that developed, at least in its initial formulation, by Gary Becker.[113] Assuming that black and white workers, or male and female workers, did not differ in their access to human capital, or in their marginal productivities at work, Becker would argue that black-white and male-female differences in income can be explained by exogenous "tastes for discrimination" on the part of employers. Employers failing to hire blacks and women with their lower wage rates would place themselves at a competitive disadvantage in respect to other employers. The most obvious problem of course of this approach is that it assumes a bogus problem. Employers have in fact employed blacks and women; they did so not in competitive labor markets characterized by wage competition, but in highly segmented and stratified labor markets -- whose roots go back into the 19th century -- characterised by job competition. Furthermore, it assumes a theory of production in which purely technical input-output cost considerations predominate, an assumption which cannot be substantiated, and finally its assumption that a simple human capital mechanism links education to the economy misconstrues the nature of the linking mechanisms between education and the labor market. An adequate account of the relationship between education and income thus requires an explanation of the structural links between education and the network of labor markets, a description of when and why they developed and how they are sustained, and an account of the genesis of labor market segmentation and its relationship to the organization of production. It is to these issues that we now turn.

VIII

For many years explanations of the relationship between education and the economy were dominated by modernization theory, although recently a lively and spirited dissent from a disparate group of revisionists has considerably weakened the hold of modernization theory on the historical imagination. In modernization theory the growth and organization of American schooling is understood as one aspect of a general modernization process characterized (in part) by the breakdown of traditional familial arrangements for the socialization and training of children, the growth of particular technological and normative requirements for modern occupational life, and the spread of democratic ideals of equality of opportunity. Different theorists stress different processes, but they nevertheless share a common perspective on schooling: first schools are a rational and efficient means of sorting and selecting talented people so that the able and motivated attain those positions that are functionally most important for the maintenance of modern industrial society; and second schools teach the kind of cognitive skills and norms essential for the preservation of social consensus and for the competent performance of work and political roles in modern society.

Thus, in one variant, stress is placed upon the normative requirements of modern occupational and political life; as Robert Dreeben suggests, schooling ". . . involves much more than training competence in job related skills, it involves as well the shaping of men's states of mind, and gaining their willingness to accept standards of conduct related to holding a job as well as to master its component activities."[114] Of particular importance are the norms of independence, achievement, universalism and specificity. An important variant of this normative emphasis has been developed by a group of historians who have focused on ethnocultural conflict and the development of "modern" attitudes and norms towards work, schooling and political life amongst immigrant groups.[115] Another variant has emphasized the spread of democratic ideas of equality of opportunity as a prime mover in the expansion of schooling.[116] The backbone of modernization theory, however, centers on questions of technological change and the demand for skilled labor, and particularly the claim that industrialization generated a demand for skilled labor which in turn promoted the expansion of schooling necessary to supply the cognitive skills.[117] Douglas C. North argues, apropos America's industrialization in the 19th century, that:

> The sustained expansion of manufacturing . . . requires a large investment in human capital. While the operatives in the factory itself may not be required to possess substantial skills, the spread of manufacturing with expansion in the size of the market leads to vertical disintegration and the development of a host of highly trained and skilled ancillary and complementary functions. I am thinking not only of the development of specialized capital goods industries and wholesale and retail marketing facilities, but equally of the wide variety of professional services which are required.[118]

H. J. Habbakuk was even more emphatic than North about the relationship between industrialization ("mechanization") and skills. Habbakuk contended that machines and skilled labor are complements in production, not alternatives, because skilled workers were required to build the machines. In all probability, he argued, "the manufacture and use of the more capital intensive technique required more skilled to unskilled labor than the labor intensive."[119] It is but a short step from here to an explanation of the expansion of schooling. Martin Trow, for example, explained the use of mass secondary and tertiary education in a two step argument. He first noted the enormous "changes in the occupational structure" reflecting "tremendous changes in the economy and organization of work" as a result of large scale mechanization and bureaucratization. Accordingly, "the growth of the secondary-school system after 1870 was in large part a response to the pull of the economy for a mass of white-collar employees with more than an elementary school education." But second, he added, "changes in the occupational structures do not provide the whole explanation of the extraordinary growth of secondary and higher education in the United States," for "the changes in the occupational structure have raised the educational aspirations of large parts of the American population, and the educational system has been responsive to these higher aspirations."[120]

With a closer look at the central assumptions of modernization theory, however, the theory quickly begins to unravel. Two interrelated difficulties, in particular, stand out: the reliance of modernization theory upon a human capital explanation of technology and increasing skill requirements as the primary source of the expansion of schooling, and one step further back, the dependence of modernization theory upon a neoclassical theory of production and the nature of the firm.

First, the reliance of modernization theory upon technology and increasing skill requirements. The basic argument is derived from human capital theory: a growing demand for skilled labor increases the individual returns to investment in education, and other things being equal (direct and opportunity costs), the demand for education rises. The theory assumes that changes in the mix of goods and services and in technology produce an increased demand for skills or educated labor. This increase in demand leads to a rise in the wage of educated workers, which produces, in turn, an increase in the incentive to invest in schooling, leading to greater voluntary enrollments. Thus, to the extent that the human capital or market mechanism operated, we would expect to observe increases in per capita employment in occupational categories associated with high levels of schooling, and perhaps increases in skill requirements within certain categories or sectors. This expectation rests on the further assumption that production processes provided relatively few opportunities for substitution among workers with different amounts of education (what economists call "low substitution effects"). Given this assumption, then, observed shifts in employment would indicate underlying shifts in the demand for labor. Likewise, the argument that skill requirements increased as a result of industrialization could be measured through (a) observing whether industrialization did in fact require more skilled workers, and (b) observing whether the shift to capital intensive techniques in fact increased the average level of skill required of industrial workers.

Sadly for modernization theory the available corpus of research provides very little support for its claims. For one, the expansion of schooling far exceeds the expansion of the occupational structure, suggesting that at best the latter can only explain part of the former.[121] Second, the demand for and the proportion of skilled labor in the manufacturing labor force has diminished over time. Not only did the Lynds note this phenomena in *Middletown*, but many others as well: Weyl and Sakolski in 1906 and Paul Douglas in the 1920's observed, the first in a trade by trade analysis, and the second in an industry by industry analysis, a decline in skill requirements and the demand for skilled labor; the Griffens described the decline in the demand for skilled workers in the labor force as industrialization proceeded in Poughkeepsie; Dawley found similar trends at work in the shoe industry in 19th century Lynn, Massachusetts, Brody and Stone in the turn of the century steel industry, and Ozanne in the farm implements industry; Ericksen and Yancey estimated that between 1850 and 1880 the proportion of skilled workers in manufacturing in Philadelphia's labor force dropped from 46.9 percent to 36.8 percent, and that between 1910 and 1930 the proportion of skilled workers in hand trades declined from 24.8 percent to 22.8 percent; in Chicago, the percentage of craftsmen, foremen and kindred workers dropped from 26.7 percent in 1880 to 17.12 percent in 1930; Braverman estimated that while the number of engineers in the U.S. has risen dramatically (2000 percent between 1880 and 1920, for example), "taken together, the technical engineers, chemists, scientists, architects, draftsmen, designers and technicians represented not more than 3 percent of the total labor force in 1970," and that all "the technical knowledge required to operate the various industries of the United States" could be found in this group.[122] Taking a different approach, Folger and Nam estimated that only 15 percent of the increase in educational attainment of the U.S. labor force during the 20th century could be attributed to shifts in the occupational structure (that is, as a consequence of an increase in the demand for skilled labor), and that the remainder of educational upgrading has occurred within job categories.[123] Moreover, there is some striking evidence -- developed and collated by Berg and Collins -- that the skill requirements of many jobs in the economy are significantly lower than the educational requirements.[124] There is also persuasive evidence -- developed initially by James Bright and later reanalyzed by Harry Braverman -- that while technological change has created many new jobs, most of these jobs have low skill requirements. Only a few require substantial knowledge or technical training -- most require unskilled monitoring jobs. Highly complex equipment does not usually need highly skilled operators, since the skills are built into the machines themselves. As Bright concluded, contrary to his initial presuppositions, "there was more evidence that automation had reduced the skill requirements of the operating labor force, and occasionally of the entire factory force, including the maintenance organization."[125] Other evidence suggests that most clerical jobs have either experienced considerable skill dilution or require only low levels of skill and such jobs account by far for the greatest proportion of the expansion in the occupational structure of the labor force since 1900. Since

1960, for example, the white collar group of workers has expanded by 15 million people, but about four-fifths of this was in sales and clerical jobs, for most of which completing high school was not necessary although perhaps required.[126]

All in all, the evidence is pretty conclusive that the proportion of skilled labor in the labor force has diminished over time, that skill requirements for most jobs in the economy are low or diminishing, and that educational certificates have little direct relationship to skill requirements. Accordingly, in structural terms, the expansion of schooling cannot be explained by reference to skill requirements and the demand for skilled labor, which is to say that the reliance of modernization theory upon the human capital market to link the economy and education is unsupportable.

What, then, links the economy to education, what are the mechanisms that create and sustain these links, and what is the relationship between education, skills and productivity? The answers to the first and third questions are closely related, and turn out in the end to hinge upon the relationship between the labor process and labor market structures. Answers to the second depend upon answers to the first and third.

One may approach the relationship between education, skills and productivity from three perspectives: it might be argued that they are not linked, or that they are linked, but only indirectly, or that they are directly linked. Collins' conflict theory of educational stratification and Berg's theory of credentialism are leading expressions of the first view. For Collins and Berg, educational credentials simply represent the impact of demographic demand and supply factors upon educational achievement rather than work-related skill requirements.[127] For Thurow, on the other hand, education and productivity are related, but only indirectly, in that educational credentials are important not for skills supposedly associated with them, but because they screen workers for the kinds of personality traits or character qualities assumed to be associated with various levels of productivity.[128] Bowles and Gintis, on the other hand, on the basis of research undertaken by themselves, Edwards and others, argue that educational qualifications reflect not cognitive or technical skills that employers seek but personality or affective traits compatible with the social relations of production: that is, education is linked to productivity, but not to skill requirements technically conceived. In other words,

> productivity is primarily a question not of the technical relations of production but of acceptance of, or at least acquiescence in, the social relations of production. (In effect, a distinction is drawn between technical efficiency in an input-output matrix and productivity in a specific set of productive social relations.)[129]

Moreover, the relationship between productivity and education varies according to the labor market: education has little relationship to productivity in male secondary labor markets; some relationship in female secondary labor markets, and only "fairly little" relationship to primary blue-collar productivity, since as Doeringer and Piore note, "by far the largest proportion of blue collar job skills are acquired on the job" -- and not in schools.[130] In independent primary labor markets, however, educational credentials often have a very close relationship to both skill requirements and job productivity.[131]

We are now in a position to describe in some detail the nature of the links between education and the economy. Schools are linked not to the economy in general, but to the organization of the labor process and the structure of labor markets; and since the structure of labor markets is dependent upon the organization of the labor process, what Edwards calls "the structure of control," it is the structure of control that determines the nature of the demand for labor -- the kinds of personality traits required by employers -- and the nature of the links between schooling and the economy.

The cornerstone of the argument is the relationship between the structure of labor markets, the structure of control, and behavioral requirements. Edwards first distinguishes between four major structures of control and the relevant kinds of attributes that the firm expects of, and rewards in, its workers. In "simple" control characteristic of entrepreneurial firms in which the owner exercises direct personal control over the labor force, apart from a general deference to the employer's power, no particular set of personality attributes are required. In "hierarchical" control characteristic of firms that due to their size can no longer rely on simple control, similar principles of control apply: each boss, whether a foreman, supervisor or manager, recreates in his shop the situation of the capitalist under entrepreneurial control. Each boss has full rights to fire and hire, evaluate and promote or demote, discipline, reward, etc.; in effect primary reliance is placed on negative sanctions to discipline and control workers; workers need to obey the boss and be sufficiently deferential, but the required behavior varies greatly with the particular foreman and conditions of employment. Simple and hierarchical control structures are particularly characteristic of secondary labor markets, including small manufacturing jobs, service and retail jobs, and temporary and typing-pool office work. In "technical" control, characteristic of firms in subordinate primary labor markets (jobs in auto and steel plants, assembly line production work, and machine paced clerical work), machinery and the flow of work are designed so that the worker is forced to work in the manner and pace dictated by the machine/industrial engineers. In technical control the system forces workers to respond to machine pacing, but beyond that it leaves workers relatively free from other demands on their behavior other than punctuality, regularity, deference to superiors and the ability to work consistently at high speed in boring, monotonous jobs. But in the fourth structure of control, "bureaucratic control," characteristic of jobs in the independent primary labor market, the demands upon personal attributes are considerable, indeed of a scale to make them comparable to the work-culture demanded by industrial capitalism and the rise of the factory.

Within firms employing bureaucratic modes of control Edwards delineated three principal modes or levels of compliance or behavior requirements: rules orientation, predictability and dependability, and internalization of the firms' goals and values.[132]

The next step in Edwards' argument is to ground this account of labor markets and behavioral requirements firmly in the nature of the labor process. He argues that labor market segmentation is based historically on the segmentation of the labor process: each labor market structure corresponds to a particular form of labor control. The secondary labor market is the market expression of workplaces organized according to simple control; subordinate primary market corresponds to technical control; and the independent primary labor market reflects bureaucratically controlled labor processes. Labor markets, in other words, "are segmented because they express a historical segmentation of the labor process; specifically, a distinct system of control inside the firm underlies each of the three market segments."[133] The fundamental basis of the division of labor markets is to be found in the labor process, and not in the labor market itself. As with the analysis of opportunity structures and mobility patterns, the analysis of the labor process assumes center stage: the character of the social structure, the class structuration of daily life, is based ultimately on the nature of the production process. Of and by themselves, these are clearly findings of extraordinary theoretical significance.

The final step of the argument is the specification of the links between the labor process, the labor market, income inequality and schooling. Each system of control -- simple, technical, bureaucratic -- has altered the ways in which the firms' workforce was recruited, paid and reproduced, and in doing so has altered the character of the structural relationships between education and the economy.

To begin, given Edwards' account of the relationship between the labor process and the labor market, the relationship between, on the one hand, job skills, behavioral requirements, on the job training, experience, and other technical characteristics of labor, and on the other hand, schooling, will be quite different from that found in human capital approaches or even approaches concerned with labor market behavior. For as Edwards suggests, "These characteristics are usually thought to create different types of labor (and so they do), and therefore to be the basis themselves of different treatment in the labor market. The relevance of these technical attributes, even their preeminence in certain cases, cannot be denied. However, the analysis presented here suggests that it is the system of control that creates the context within which experience, training, schooling, skills, and other attributes assume their importance."[134] For this reason it is now possible to see why experience and schooling do not explain secondary workers' income but do explain primary workers' income: viz., secondary work is organized so as to minimize the need for experience and schooling, whereas primary work is organized so that it utilizes these factors.[135] In effect -- it is not wages competition but the nature of work that determines income, and the nature of the labor process, as noted earlier, is less a technical than a social question, a function of the social relations of production -- the system of control -- not of the technical relations of production.

But that systems of control shape the contexts within which experience and schooling are important -- or not important -- and are rewarded accordingly, is not all that is explained. For it also follows that the character of the recruitment process will vary according to the nature of the control process and labor market structure. And, as a consequence, it can be hypothesized that the character of the structural links between work and the labor market, on the one hand, and schooling on the other hand, varies, not only at any one time, depending upon the particular structure of control and labor markets at that time, but also over time, as the pattern of the control structures and labor markets alters. The first task then of the historian of the structural relationship between education and the economy is to describe the development of control structures and labor markets: the creation of simple, hierarchical, technical and bureaucratic forms of control, and the development of corresponding segmented labor markets. An important feature of this analysis is the description of the creation of internal labor markets -- that is, a set of procedures within the firm itself for performing the functions of the external market -- the allocation and pricing of labor -- that Doeringer and Piore assert are characteristic of most large firms.[136] Educational credentials are crucial mechanisms within internal labor markets, and apart from their role in independent primary labor markets, are perhaps much more significant in internal labor markets than in secondary or subordinate primary labor markets. Again, the description of the development of professional labor markets would also appear to be a high priority, for here also educational credentials became important as professionals attempted to create a separate labor market for their services guarded by educational credentials. Here Larson's account of the manner in which practitioners of medicine and law were able during the course of the 19th and 20th centuries to create in effect a primary labor market for their services is exemplary. She treats professionalization as a process in which producers of special services sought to constitute and control a market for their expertise and "an attempt to translate one order of scarce resources -- special knowledge and skills -- into another -- social and economic rewards." These goals were achieved through the creation of a monopoly of expertise in the market, and a monopoly of status in the stratification system. These monopolies were based upon a principle of legitimacy derived from the achievement of socially recognized expertise, that is, upon a system of education and credentialling. In the transition of the function of the profession from the predominantly economic role of linking expertise and the market to the predominantly ideological one of justifying inequality of status and closure of access in the occupational order, education as a source of social legitimacy played the crucial role.[137]

If the first task of the historian of the relationship between education and the economy is the description of the development of various labor markets and processes, including the use of educational credentials to regulate access to different labor markets, the second task is the specification of the organizational processes within schools that link the schools to the labor process and labor markets. Two sets of candidates seem plausible: those emphasizing organizational processes within schools associated with the socialization of children, and those emphasizing "allocation" processes.

Organizational approaches that link the economy and education through socialization processes specify some particular organizational feature of the school that is said to be responsible for socializing children into the normative requirements of the world of work. Thus, during the late sixties and early seventies a number of historians, following a line of argument established by Robert Merton's analysis of the bureaucratic personality, argued that the formal bureaucratic structures of educational systems -- the centralization of control and supervision, differentiation of function, the standardization of appointment and promotions, the rationalization of the educational process -- were responsible for the socialization of children into work norms.[138] In the most comprehensive of these efforts, David Tyack described the normative goals of the "administrative progressives" for school children -- punctuality, regularity, attention, silence, obedience, precision -- and attempted to specify the particular bureaucratic features of schooling that he believed were responsible for inculcating these norms -- class grading, uniform courses of study, standardized written examinations, competition for grades, intense activity, strict rules of behavior.[139] Unfortunately, historians have no way of proving either that children were in fact socialized into those behaviors -- or the extent to which they were -- or whether the socialization mechanisms specified were the ones responsible.

A second approach to the relationship between education and economy differs from the first in the character of the organizational features said to be responsible for socializing children -- and varies a little too in the specification of the socialization outcomes. Drawing upon the work of Parsons, Inkeles, and Stinchcombe, Robert Dreeben developed an account of the organization of the school that attempted to link the ecological features of the school with the normative requirements -- universalism, specificity, achievement and independence -- required of modern occupational life.[140] Dreeben stressed that the age graded, relatively autonomous classrooms of specific size, composition, degree of differentiation, scheduling and reward structure provided students with the social experiences necessary for learning occupational norms. Schools teach students to work for the sake of grades rather than because of their personal emotional relationship with the teacher. They teach that performance and competence, what you do rather than what you are, are the basis of rewards and status. Because classrooms are large collectivities, children are subject to experiences of impersonality. Yearly promotions, and the size and staff specialization of schools, systematically provide students with lessons in forming and breaking transitory relationships. This helps form the ability to distinguish between positions and persons. Schools reward merit and achievement with extrinsic rewards -- grades and promotions. And schools also provide children with experiences that allow them to differentiate between the varying principles of superordination and subordination, i.e., authority and obedience. As Dreeben suggests, "Schooling, insofar as it entails repeated and systematic variation of persons (teachers, pupils), situations (school grade, class size), and areas of conduct, provides a setting in which different types of subordination with their corresponding principles of legitimacy can be experienced."[141]

This is a powerful and useful model of the organization of schooling, one whose arguments find strong support in the writings of other observers. Nevertheless, it is not without its difficulties and requires some important modifications and additions. One approach that attempts to overcome some of these difficulties is the social relations model of Bowles and Gintis.

Like Dreeben, Bowles and Gintis argue that the principal structural connection between school and work is the organization of schooling, but they also insist that schools systematically vary in what they call the social relations of education, and in the normative orientations toward work that schools generate. Bowles and Gintis claim that the major aspects of educational organization replicate the relationships of dominance and subordinancy in the economic sphere, specifically, that "the social relations of education -- the relationships between administrators and teachers, teachers and students, students and students, and students and their work -- replicate the hierarchical division of labor." As a consequence of their experiences of the social relations of education, students are socialized into the appropriate personality characteristics, habits, modes of self-presentation required by modern bureaucratic and hierarchically organized enterprises. Most schools, they argue, teach the kind of qualities and personality characteristics that are essential for the performance of low and middle level jobs: obedience, punctuality, respect, orderly work habits, the ability to follow instruction. Those schools, or levels of schooling, that differ in the structure of social relations are for the most part engaged in "soft socialization": the production of workers for upper level jobs whose major work orientation is the "internalization of norms." Bowles and Gintis thus argue that systematic differences exist in the social relations of education and that these play an important role in the intergenerational reproduction of inequality. Differences in the organization of schools play an important role in the status attainment process.[142]

So far so good. But Bowles and Gintis go on to claim -- rashly -- that the correspondence mechanism is the only important link between work and schooling: they stress that it is the form of the social relations of education that is the crucial process in the socialization of future workers.

> The heart of the process is to be found not in the content of the educational encounter -- or the process of the information transfer -- but in the form: the social relations of the educational encounter. These correspond closely to the social relations of dominance, subordination, and motivation in the economic sphere. Through the educational encounter, individuals are induced to accept the degree of powerlessness with which they will be faced as mature workers.[143]

This is much too exaggerated. While Bowles and Gintis present evidence of the statistical correspondence between the personal attributes required for success in work and in schools, the evidence is thin, at best only suggestive, and certainly not conclusive. But more importantly, they neglect linking mechanisms other than the correspondence between the social relations of production and education. Educational processes other than the form of the social relations of education need also to be considered. Basil Bernstein, for one, has developed a provocative but as yet untested theory that the form of the relations between curriculum, pedagogy, and evaluation (that is, the nature of the "classification" and "framing" of "educational transmissions") embody important ideological messages, educational "codes" that are structurally linked to production codes. Bernstein also argues that a historical shift from "collection" to "integrated" educational codes has occurred and is a consequence of changes in the "division of labor" that have affected the nature of skill requirements in modern industry.[144] Others have pointed to what Pierre Bourdeu calls the "cultural capital" of schooling -- its normative order of symbols, rituals, knowledge, meanings, values, practices, and relationships -- as a crucial mechanism of cultural reproduction of class relations.[145] Bowles and Gintis come close at points in their analysis where they seem to have something similar in mind to the idea of cultural capital, for instance in discussing "the types of personal demeanor, modes of self presentation, self image, and social class identifications," but they spoil the argument by limiting the linkages to "the structure of social relations of education" on the one hand and "job adequacy" on the other.[146] The issue is much more complex than this, and it is simply too reductive to view the cultural capital of the school or the social relations of education determining in any direct sense, as Paul Willis puts it, "the subjective and cultural formation of particular kinds of labor power."[147] For as Willis' own study demonstrates, working class students contest the official normative order of the school and attempt to create their own counter culture. That students create their own school cultures is no great surprise -- Hollingshead, Coleman, Stinchcombe and many others have demonstrated this many times. What is new and provocative about Willis' work is that he shows that schooling is less a process of imposition of meanings (for example, through labelling processes), than of a process of cultural contest, and negotiation between different orders of meaning, whose roots are to be found in the clash between the cultural capital of the school and the process of (counter) cultural formation among working class children. It is not so much that working class children are socialized into the norms and behaviors compatible with the social relations of production, but that out of the effort to resist official labels and meanings and create a counter culture of fraternity and self worth, they create a cultural practice that feeds them right into working class jobs -- a process of "self induction" that is as tragic as it is poignant. Schools are less institutions of socialization than arenas of cultural conflict, negotiation and class reproduction. As well as any study yet written, Willis' book exposes the layers of cultural and symbolic mediations and contests within schools, and lays bare how economic and social pressures are transformed and lived out, and not simply mirrored or reproduced in schools. It is in this sense and this sense only that we can say that schools are hegemonic institutions, and that the process of class reproduction is both an economic and cultural phenomenon — and needs to be approached as such.[148]

The major alternative to a socialization approach to the organizational links between education and the economy is an allocation theory.[149] Allocation theorists claim that adult success is assigned to individuals on the basis of the type and duration of schooling received, whatever they may have learned in school. Schooling is viewed as a set of instructional rules which classify and allocate individuals to positions in society; it symbolically redefines graduates as possessing particular qualities and skills gained through attendance at school or college, and this occurs independently of whether or not any actual changes in competency, skill or values have occurred. From this perspective the importance of school organization is that it legitimates the claim that students have had particular kinds of educational experiences. The major source of organizational diversity and change between and within schools are the symbolic conceptions or definitions of graduates that schools wish to project to their clients, for example, employers. The linkage between schooling and work is to be found in the legitimation of particular student characteristics rather than in actual internalization of specific behavior or attitudes. The organization of schooling is thus approached less in terms of a structure of socialization processes than as a set of sorting and selecting processes that sort, classify and label students and allocate or distribute them into different curriculum tracks and/or positions of occupational structure. Schools are structures of internal stratification processes that link the schools to the stratification system outside the school and to the structure of the division of labor as suppliers of certified labor power. As Jencks pronounced, "schools serve primarily as selection and certification agencies, whose job is to measure and label people, and only secondarily as socialization agencies, whose job is to change people."[150]

Both sets of models of the organizational processes linking schooling to the economy contain much of value: the question is not either-or, but rather -- given the relationship between education and productivity, the significance of labor market structure, and the integral relationship between labor process and labor market -- that both are required, for both explain different, but interconnected, facets of the relationship between schooling and the economy. Allocation models highlight the importance of the connection between internal stratification and labelling processes within the school and labor markets, while socialization models, particularly those of Bowles and Gintis and Willis, highlight the connection between the school and the labor process -- although how they do this is profoundly different. Of course, between any two periods, or between any two particular labor markets, the relative importance of the two mechanisms will vary, but this is a matter of empirical investigation, and not of a priori theorizing.

One final question remains to be considered in this examination of the relationship between schooling and the economy. Given that human capital mechanisms cannot account for the structural linkages between schooling and the economy, what can? The most plausible answer is that political rather than alternative economic mechanisms do so: political mechanisms create and sustain the structural links between schooling and the economy. The fundamental reason that contradictions and "non-correspondences" between the school system and the economy periodically occur -- for example, the oversupply of educated labor, credentialling and consequent legitimation crises -- is that the school system is not an economic institution in a demand and supply market. It has its own independent institutional base, rooted in professional and political control of the institution. It is connected to the economy via various structural linkages, but it is not an economic institution in the same sense, as say, a firm or a labor market. (And even in this regard schools for the most part do not operate in competitive educational markets. What proponents of vouchers tend to forget in their effort to establish competitive educational markets is that schools were not intended by their founders to operate in competitive markets: their primary purpose in the final analysis was political and ideological.) In many ways one of the exciting, even brilliant, insights of Schooling in Capitalist America was exactly this point: it is political mechanisms which create and sustain structural links between education and the economy: "the independent internal dynamics of the two systems (work and schooling) present the ever-present possibility of a significant mismatch arising between economy and education," while yet insisting that the history of American education is replete with the efforts of capitalists and reformers to create such a correspondence between the work place and the school, and that in general, and in the long run, through political processes of "pluralist accommodation" and "concrete political struggle along the lines of class interest," a considerable but not automatic or omnipresent correspondence has been effected between the work place and the schools.[151] There is no omnipotent "invisible hand" of the human capital kind, nor a "functional fit" that Parsonians imagine, nor a "class determinism" of the social control historians' fantasy. There are only concrete political struggles -- sometimes assuming a class character -- between groups of people with different goals and interests, and reacting to different contingencies. No more, and no less. The same is true of schools as organizations. At the organizational level schools, as sociologists very properly never tire of reminding us, are characterized by "competitive," "incompatible" or "contradictory" processes or structures: for example, between principles of recruitment for teachers, students and administrators, between vocational goals and citizenship training, between the need to motivate and the need to discipline, and between the competing authority of teachers, administrators and parents through the local school board.[152] On top of this, the process of organizational development, as many sociologists like to forget, is also a political process, not the consequence of some bureaucratic imperative.[153] The demand for vocational education, for example, during the progressive era was a political and ideological response, primarily of efficiency-minded educators and business groups, to the transformation of the labor process and the development of segmented labor markets demanding a finer articulation of the school system with the economic "needs" of the society; and the implementation of vocational education in the schools was a process riddled with political conflicts and motifs.[154] The subsequent history of vocational education during the thirties, forties, fifties, and sixties, the development of career education in the seventies, and black vocational education since Reconstruction, is the history of political responses to economic and ideological changes, and not the working of the invisible hand.[155]

IX

In this essay I have argued that the character of the American social structure has been shaped by the forces of industrial capitalism: the creation of a market in labor, the reorganization of its work life, the restless and ceaseless movement of its peoples, the transformation of its opportunity structure and mobility patterns as the world of the yeoman's plough and the artisan's shop yielded, painfully, to the world of the factory operative and the office worker, the mediation of family and occupation by schooling, and the new articulation of education with the economy during the progressive era. There is much in this story that has not been canvassed — the modernization of inequality and incompetence, the creation of new institutional grids and systems of stratification, the transformation of family life and political culture, the impact of the new social structure upon the mental images, symbols and understandings that Americans created of themselves and their society, and the forms of cultural practice that they developed.[156] But the story is also incomplete in even a more fundamental sense, and that is in its absence of any treatment of the tensions, conflicts, and contradictions that the reshaping of the social structure by the forces of industrial capitalism generated within the social structure itself -- most importantly, in the conflicts between labor and capital -- and between the principles of a market society and the second major principle of social organization in American life, the legacy of the Revolutionary era, republicanism, the source of much of America's self identity and political culture.[157] Some of these conflicts are particularly significant, for they shed light on the articulation of education with the economy during the late 19th-early 20th century.

One of these conflicts is the tension between the promise of republican independence and the reality of wage employment or economic dependency, a tension exacerbated by the impact of industrialization upon the character of the opportunity structure, upsetting the old equation of hard work and economic independence. The eventual outcome of this tension was the transformation of the old republican idea of yeoman and entrepreneurial independence into the ideology of status mobility, a redefinition of economic success in terms of status, income, prestige, and steady promotion up through corporate hierarchies. And not only did the meaning of economic success change; so too did the means, from the character virtues of frugality and industry to the personality traits of sociability, charm and willpower. The visions of Franklin, Jefferson and Paine gave way to the dicta of Horatio Alger and Russell Conwell, and these in turn to the pat formula of Norman Vincent Peale and Dale Carnegie.[158] A second tension is that which has haunted the liberal mind and bourgeois social theory for two hundred years, and dissected with varying degrees of success by workers from de Tocqueville and Weber to Hartz, Pocock and Steinfels: the tension between the market principle of self interest and republican virtue, between individual achievement and social equality, between utility and morality. The offspring of this unhappy union was a veritable prodigy of conceptual bastards: the transmutation of avarice from a vice into a virtue; the redefinition of equality into equality of opportunity, the reduction of equality of opportunity into equality of educational opportunity, the metamorphosis of democracy into meritocracy, the birth of "contest" mobility and "expanding universalism." But however unfortunate their origins, in true ascriptive fashion, their careers have not been notable for lack of success.[159] Meritocratic ideology has been the single most important legitimation of inequality; the pursuit of equality of opportunity has spawned reform movement after reform movement in education, from the common school reform period through the progressive era and on into the "War on Poverty" (which is not quite the same thing as a war on inequality). Unhappily, despite the existence of a number of studies that have traced the meritocratic assumptions of American social thought, the 19th century "crisis of authority," the appearance of the concept of the "career," and Larson's study of professional educational credentials as a form of legitimacy, no systematic studies have yet appeared of the development of credentialism and the rise of education as the principal institutional source of legitimacy for the structure of social authority and the nature of distributive justice in America.[160]

Finally, the history of American education in the 20th century could very appropriately be written from the perspective of the tension between the political purposes of schooling, inherited from the Revolution and the common school reform movement, and the constant, unremitting pressure of market conceptions upon schooling: the demand of business groups for the appropriate training and differentiation of workers, first at the secondary school level and later at the tertiary level; the continual effort by parents in all classes, creeds and races to use education instrumentally as a means of improving their children's chances in the labor market; the recent career education movement seeking to ensure the habituation of children to the work ethic and to provide them with entry level skills. These are all rational and intelligible responses to the market economy, but, as many during the progressive era recognized, also threats to the original political purposes of schooling -- the development of republican citizens. The progressive period was in fact the time when the great ideological battle of American education was fought out between these two principles of social and educational organization; by 1920, however, it had witnessed the triumph of vocationalism, although not without some compromises, the chief of which was the abandonment of the effort to establish dual systems of secondary education for the comprehensive high school. Of course, it is exactly this compromise that has been avoided in higher education where a highly stratified system has appeared -- helped along in no small measure by the Carnegie Commission on Higher Education.[161] If the triumph of the market in politics, as in the economy, left nothing but the pursuit of self interest, if in culture it left nothing but narcissism and the psychedelic bazaar, if in relations between individuals nothing but the cash nexus, in education it has increasingly left nothing but vocationalism.

FOOTNOTES

1. R. & H. Lynd, Middletown (New York, Harvest, 1929) 25.

2. Ibid., 25-27.

3. Ibid., 39.

4. Ibid., 39-40, 44.

5. Ibid., 73, 74.

6. Ibid., 74-75.

7. Ibid., 74, 65-67.

8. Ibid., 23-24.

9. Ibid., 64-65.

10. Ibid., 80-81; also 75-76, 87, 286.

11. Ibid., 80, 187, 219-20, 49.

12. Ibid., 194-195.

13. Ibid., 188.

14. Despite the fact that the conceptual and theoretical tools for the analysis of the reshaping of social life by industrial capitalism have been available since Marx wrote Capital, and used with great ability by English historians -- Maurice Dobb, E. P. Thompson, Christopher Hill, John Foster, Eric Hobsbawn, Gareth Stedman Jones, Rodney Hilton, very few American historians have yet employed them. The outstanding exceptions are Alan Dawley, Class and Community (Cambridge: Harvard University Press, 1976), and Michael Katz, Mark Stern and Michael Doucet, The Social Organization of Industrial Capitalism (Cambridge: Harvard University Press, forthcoming).

15. Dawley, Ch. 1, 2, 3. See also G. R. Taylor, The Transportation Revolution, 1815-1860 (New York: Harper, 1951) Ch. 13; D. R. Nelson, Managers and Workers (Madison: University of Wisconsin Press, 1975) Ch. 5.

16. Dawley, 32.

17. N. Ware, *Labor in Modern Industrial Society* (New York: Russell & Russell, 1968) 57.

18. S. Gideon, *Mechanization Takes Command* (New York: W. W. Norton, 1969) 69; see also D. Brody, *Steelworkers in America* (New York: Harper, 1960), and D. Hogan, "Capitalism and Schooling: The Political Economy of Education in Chicago: 1880-1930." Unpublished Ph.D. dissertation, University of Illinois, 1978, Ch. 1, 2, 3.

19. M. Reich, "The Evolution of the U.S. Labor Force," in R. C. Edwards , M. Reich, & T. Weisskopf, *The Capitalist System* (New Jersey: Prentice Hall, 1972), 175. See also H. Braverman, *Labor and Monopoly Capital* (New York: Monthly Review Press, 1974), 379. For a general discussion of the expansion of markets in labor in the context of Western capitalism, see K. Polanyi, *The Great Transformation* (Boston: Beacon Press, 1957); K. Marx, *Capital* (New York: International Publishers, 1972) 1, Pt. VIII; M. Dobb, *Studies in the Development of Capitalism* (New York: International Publishers, 1947).

20. Reich, 182; U.S. Bureau of the Census: *Historical Statistics of the United States, Colonial Times to 1970* (Washington: Government Printing Office, 1976) Pt. 1, 11-12.

21. B. McKelvey, *American Urbanization: A Comparative History* (Glenview, Illinois: Scott, Foresman & Co., 1973) 24, 37, 104.

22. For general discussion of female labor force participation, see M. Gordon, *The American Family: Past, Present and Future* (New York: Random House, 1978) Ch. 14; A. Kesslor-Harris "Stratifying by Sex: Understanding the History of Working Women" in R. C. Edwards, M. Reich, D. Gordon, *Labor Market Segmentation* (Lexington, Mass.: D. C. Heath, 1975); A. Miller, "Changing Life Patterns: A Twenty-Five Year Review," *Annals, AAPSS*, 435, January 1978, 83-101; E. Rotella, "Women's Participation in the U.S. Paid Labor Force, 1870-1930: The Decline of the Family Economy and the Rise of the Clerical Sector," memo, Department of Economics, San Diego State University, 1977; J. Brecher and T. Costello, *Common Sense For Hard Times* (New York: Two Continents, 1976) Ch. 12.

23. Bureau of the Census, *Historical Statistics*, 1, 132-133.

24. Reich, 181; H. Baron, "The Demand for Black Labor: Historical Notes on the Political Economy of Racism," *Radical America*, 1971, 1-46.

25. M. Weber, Economy and Society, ed. by Gunther Ross (New York: Bedminister, 1968); W. W. Warner, Social Class in America (New York: Harper & Row, 1960); T. Parsons, "Equality and Inequality in Modern Society, or Social Stratification Revisited," Sociological Inquiry, 40, Spring 1970; K. Davis & W. E. Moore "Some Principles of Stratification," The American Sociological Review, U, 10, 2 (1945) 242-49; G. Lenski, Power and Privilege (New York: McGraw Hill, 1966); R. Dahrendorf, Class and Class Conflict in Industrial Society (Stanford: Stanford University Press, 1959).

26. See for example E. O. Wright and L. Perrone "Marxist Class Categories and Income Inequality." American Sociological Review 42, 1977, 32-55; E. O. Wright "Class Boundaries in Advanced Capitalist Societies," New Left Review 98, 1976, 3-41; N. Poulantzas, Classes in Contemporary Capitalism (London: New Left Books, 1975); A. Giddens, The Class Structure of Advanced Societies (New York: Harper, 1973); Braverman, Labor and Monopoly Capital, Part IV and V; Edwards, Contested Terrain, Ch. 9, 10; G. Carchedi, "The Economic Identification of the New Middle Class," Economy and Society, 4, 1975, 1-83.

27. M. Katz, "Toward a Two-Class Model of the Nineteenth Century City in North America." Paper prepared for XLII International Congress of Americanists in Van Couver, BC., August 10-17, 1979; Wright and Perrone, op. cit.

28. I will not discuss all of these topics in this paper. Two in particular — ecological patterns and institutional development, have been dealt with in very competent fashion by other historians. For the dependency of urban ecological patterns upon the nature of the opportunity structure, see T. Hershberg (ed.), Toward an Interdisciplinary History of the City: Work, Space, Family and Group Experience in Nineteenth Century America (New York: Oxford University Press, forthcoming), Pt. II. For the relationship between industrial development and the pattern of institutional development, see M. Katz, "Origins of the Institutional State," Marxist Perspectives, 1, 4, Winter 1978, 6-22, and his "The Origins of Public Education: A Reassessment," History of Education Quarterly, Winter 1976, 381-407. The theoretical value of the concept of structuration is outlined by A. Giddens, New Rules of Sociological Method (New York: Basic Books, 1976) Ch. 3.

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The Other Bostonians (Cambridge: Harvard University Press, 1973) Ch. 2; M. Katz, The People of Hamilton, Canada West (Cambridge: Harvard University Press, 1975) Ch. 3; C. and S. Griffen, Natives and Newcomers (Cambridge: Harvard University Press, 1978) Ch. 1.

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32. See M. Piore

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34. A. Chandler, Strategy and Structure (Cambirdge: MIT Press, 1969); The Visible Hand (Cambridge: The Belknap Press, 1977); C. W. Mills, White Collar (New York: Oxford University Press, 1959); Braverman, Ch. 15, 16, 18; R. Edwards, Contested Terrain (New York: Basic Books, 1979) Ch. 8; S. Hymer, "The Evolution of the Corporation" in Edwards, Reich, and Weisskopt, 120-125; Hogan, "Capitalism and Schooling, Ch. 2; S. Aronowitz, False Promises (New York: McGraw Hill, 1973) Ch. 6.

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data for 1960 from U.S. Department of Commerce, Bureau of the Census, U.S. Census of Population, 1960, Table 201; data for 1972-1985 from Neal Rosenthal, "The United States Economy in 1985: Projected Change in Occupation," Monthly Labor Review (December 1973), Table 2, p. 19.

37. Thernstrom, The Other Bostonians, Ch. 4.

38. Griffen & Griffen, Ch. 1.

39. Katz, 143-147.

40. Griffen & Griffen, 65-68; Thernstrom, The Other Bostonians, 244-246.

41. Thernstrom, The Other Bostonians, 82-94, 241.

42. P. Blau and O. Duncan, The American Occupational Structure (New York: Wiley, 1967) 178, 429.

43. Thernstrom, The Other Bostonians, 104-110.

44. S. P. Hays, "Review of the Other Bostonians," Journal of Social History 9 (3) Spring 1976; Thernstrom, The Other Bostonians, 110.

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47. Wright and Perrone, op cit.

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49. B. Laurie, T. Hershberg, & G. Alter, "Immigrants and Industry: The Philadelphia Experience, 1850-1880" Philadelphia Social History Project, February, 1975.

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51. J. Ericksen & W. P. Yancey, "Emergent Ethnicity: A Review and Reformulation," American Sociological Review 41, 3 (June 1976); Hogan, "Education and Class Formation."

52. See M. Gordon, Assimilation in American Life (New York: Oxford University Press, 1968); Ericksen & Yancey, "Emergent Ethnicity."

53. D. Hogan, "Education and the Making of the Chicago Working Class, 1880-1930," History of Education Quarterly, 18, 3 (Fall 1978), 227-70;
J. Kett, Rites of Passage (New York: Basic Books, 1977) Ch. 6;
M. Katz and I. Davey, "School Attendance and Early Industrialization in a Canadian City: A Multivariate Analysis," History of Education Quarterly, 18, 3 (Fall, 1978), 271-94;
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54. Ericksen & Yancey, "Emergent Ethnicity."

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56. A. Dawley, "E. P. Thompson and the Americans," Radical History Review, 19 (Winter, 1978-79) 40.

57. Ericksen & Yancey, "Emergent Ethnicity," 399-400.

58. W. Kornblum, Blue Collar Community (Chicago: Chicago University Press, 1974) 18.

59. Ibid., 37, 21, 17

60. Ibid., 83

61. Ibid., 69.

62. Griffen & Griffen, Ch. 8, 256-257.

63. Thernstrom, *The Other Bostonians*, Ch. 6, 250-256.

64. M. Katz, *People of Hamilton*, 60-69; Laurie, Hershberg and Alter, 13-18; E. P. Ericksen and W. L. Yancey, "Immigrants and Their Opportunities: Philadelphia, 1850-1936," *PSHP*, 1979; J. Barton, *Peasants and Strangers* (Cambridge: Harvard University Press, 197).

65. See Thernstrom, *The Other Bostonians*, 251-52; and especially T. Hershberg, et al. "A Tale of Three Cities: Blacks and Immigrants in Philadelphia: 1850-1880, 1930 and 1970," *The Annals of the American Academy of Political and Social Science*, 441, January 1979, 55-81.

66. D. Hogan, "Education and the Making of the Chicago Working Class, 1880-1930," *History of Education Quarterly*, 18, 3 (Fall, 1978), 227-70; J. Kett, *Rites of Passage* (New York: Basic Books, 1977), Ch. 6; M. Katz and I. Davey, "School Attendance and Early Industrialization in a Canadian City: A Multivariante Analysis," *History of Education Quarterly*, 18, 3(Fall, 1978) 271-94; C. Golden, "Family Strategies and the Family Economy: The Role of Secondary Workers" in T. Hershberg, ed., *Toward an Interdisciplinary History of the City* (Oxford: Oxford University Press, forthcoming, 1980); M. Katz and M. Stern, "Fertility, Class and Industrial Capitalism: Erie County, New York, 1855-1915," Graduate School of Education, University of Pennsylvania, 1979.

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68. M. Katz & I. Davey, "Youth and Early Industrialization in a Canadian City" in J. Demos & S. S. Boocock (eds.) *Turning Points* (Chicago: University of Chicago Press, 1978) 103.

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70. S. Bowles & H. Gintis, *Schooling in Capitalist America* (New York: Basic Books, 1976) 30-33.

71. Blau and Duncan, Ch. 9, 401-403; W. H. Sewell, R. Hauser, "Causes and Consequences of Higher Education: Models of the Status Attain-

ment Process" in W. H. Sewell, R. Hauser, and D. Featherman, Schooling and Achievement in American Society (New York: Academic Press, 1976) Ch. 1.

72. Katz and Davey, 107; Jensen and Friedberger, op. cit.; Griffen and Griffen, 80-83.

73. Blau and Duncan, 402-403.

74. C. Jencks, Inequality (New York: Harper & Row, 1973). For reviews of Jencks, see the symposiums in the American Educational Research Journal, Spring 1974, Harvard Educational Review, Fall 1973, and the Sociology of Education, Winter 1973.

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76. Bowles and Gintis, 111-113, 120.

77. Sewell and Hauser, Ch. 1.

78. Hogan, "Education and Class Formation."

79. Sewell and Hauser, Ch. 1; J. Coleman, et al. Equality of Education Opportunity (Washington, D.C.: U.S. Government, 1966); T. Smith, "Native Blacks and Foreign Whites: Varying Responses to Educational Opportunity in America, 1880-1950," Perspectives in American History 6, (1972), 309-35.

80. A. C. Kerckhoff, "The Status Attainment Process: Socialization or Allocation," Social Forces 55 (1976), 368-81.

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96. Bowles and Gintis, 34.

97. L. Thurow, "Education and Economic Inequality" in Karabell and Halsey, 327.

98. B. Chiswick and J. Mincer, "Time Series Changes in Personal Income Inequality in the U.S." *Journal of Political Economy*, 80, 3, Pt. II, May-June, 1972, cited by Bowles and Gintis, 34.

99. Thurow, 327.

100. Ibid.

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102. R. Boudon, "Education and Social Mobility: A Structural Model" in Karabel and Halsey, 187, 194. See also his Education, Opportunity and Social Inequality: Changing Prospects in Western Society (New York: John Wiley & Sons, 1974).

103. R. Hauser, "Review Essay: On Boudon's Model of Social Mobility," American Journal of Sociology, 81, 4, 197 , 911-927.

104. R. Collins, "Functional and Conflict Theories of Educational Stratification," American Sociology Review, 36, 1971, 1002-10. Reprinted in Karabel and Halsey, 118-136.

105. I. Berg, Education and Jobs (Boston: Beacon Press, 1971).

106. As a model to explain the relationship between education and income or mobility, Collins' model has much to recommend it. As an explanation, however, of the expansion of schooling, it is not without its difficulties. First of all, it does not explain the politics of educational expansion, that is, it does not explain the politics of compulsory education, neighborhood schooling, differentiated education (vocational education, testing, etc.), and the stratification of higher education. Recent research suggests that educational elites imposed many of these features of the educational system in an effort to ensure the incorporation of students into the various ideological practices of capitalist society and to develop an institutional apparatus that would effectively channel students into a differentiated and stratified labor market. Second, Collins' theory of status competition seriously misconstrues the motives of working class parents and many middle class parents in sending their children to school, and fails to provide any account of the genesis of such motives or their significance in different class cultures. For the most part these deficiencies are due to Collins' undifferentiated notion of market: working class and middle class educational behavior was less a search for status than a rational response to a wage labor society -- education first and foremost was widely believed to be the key to economic survival. People send their children to school in order to enhance the market value, whatever its fluctuations, of their children's labor power. Educational behavior then cannot be understood independent of the structure of class relations, in particular, the wage labor system. And finally, Collins' theory of status competition fails to provide any account of the organizational features of schooling. This is an important issue and I will return to it later.

107. Thurow, 326, 328, 330.

108. Ibid., 326.

109. Labor market segmentation theory is surveyed in D. Gordon, Theories of Poverty and Underemployment (Lexington, Mass.: D. C. Heath, 1972), and Edwards, Contested Terrain, Ch. 9.

110. Edwards, Contested Terrain, Ch. 9; R. Buchele, "Jobs and Workers: A Labor Market Segmentation Perspective on the Work Experience Of Middle-Aged Men," cited by Edwards, 170, 173, 175; P. Osterman, "An Empirical Study of Labor Market Segmentation," Journal of Industrial and Labor Relations, 1975; D. Gordon, Theories of Poverty and Underemployment, Ch. 7; M. Carnoy and R. Rumberger Segmented Labor Markets: Some Empirical Forays (Palo Alto, CA.: Center for Economic Studies, 1975).

111. Edwards, 194-197.

112. For a review of the evidence on blacks' return to education, see Gordon, Theories of Poverty and Underemployment, 118-119.

113. G. Becker, The Economics of Discrimination (Chicago: University of Chicago Press, 1959).

114. R. Dreeben, On What Schools Teach (Reading, Mass.: Addison Wesley, 1968).

115. Jensen and Friedberger, op cit.; R. Jensen, The Winning of the Midwest (Chicago: University of Chicago Press, 1971); Jensen, Illinois: A History (New York: Norton, 1978); T. Smith, "Immigrant Social Aspirations and American Education, 1880-1930," American Quarterly (Fall, 1969), 523-43; S. Troen, The Public and the Schools (Columbia: University of Missouri Press, 1975).

116. L. Cremin, The Transformation of the School (New York: Vintage, 1961); E. P. Cubberley, Public Education in the United States (Boston: Houghton Mifflin, 1934).

117. D. S. North, "Capital Formation in the United States During the Early Period of Industrialization," in R. W. Fogel and S. L. Engerman, eds., The Reinterpretation of American Economic History (New York: Harper & Row, 1971); D. Adams and G. Reagan, Schooling and Social Change in Modern America (New York: McKay, 1972); H. J. Habbakuk, American and British Technology in the Nineteenth Century (Cambridge, Mass.: Cambridge University Press, 1962); M. Trow, "The Second Transformation of American Secondary Education," in R. Bendix and S. M. Lipset, Class Status and Power (London: Routledge and Kegan Paul, 1967) 437-449.

118. North, 277.

119. Habbakuk, 21.

120. Trow, 438-439.

121. Collins, op cit.; A. Field, Skill Requirements in Early Industrialization: The Case of Massachusetts (University of California, 1973); J. Folger and C. Nam, Education of the American Population (Washington, D.C.: U.S. Bureau of the Census, U.S. Government Printing Office, 1967).

122. U.S. Bureau of Labor, Conditions of Entrance to the Principle Trades by W. E. Weyl and A. M. Sakolski, Bulletin No. 67, November 1906 (Washington, D.C.: Government Printing Office, 1907); P. Douglas, "American Apprenticeship and Industrial Education," Columbia University Studies in History Economics and Public Law XCII (2), 1921; Ozanne, op cit.; Dawley, op cit.; Brody, op cit.; Stone, op cit.; Griffen and Griffen, Ch. 7; Ericksen and Yancey, "Immigrants and their Opportunities,"Table 2; Hogan, "Capitalism and Schooling," Ch. 2; Braverman, 241-42. For a discussion of the nature of the category skilled labor used in the U.S. Census, see Braverman, Ch. 20, and M. Conk, "Mobility Studies in Historical Perspective," Marxist Perspectives (Fall, 1978), 52-69.

123. Folger and Nam, op cit.

124. Berg, op cit.; Collins, op cit.; D. K. Newman et al., Protest, Politics and Prosperity (New York: Pantheon, 1978) Ch. 3.

125. Cited by Braverman, 220.

126. Braverman, Ch. 15; Mills, Chs. 8, 9; Reich, 179-180; Berg, op cit.

127. Collins, op cit.; Berg, op cit.

128. Thurow, op cit.

129. Bowles and Gintis, Ch. 5. The distinction between technical efficiency and productivity is discussed by Marglin, op cit., and H. Gintis, "The Nature of Labor Exchange and the Theory of Capitalist Production," Review Radical Political Economics, 8, 2, (Summer 1976), 36-54. This argument is also supported by a wealth of sociological research upon the organization of work. Most sociologists of work and organization have increasingly despaired of explaining the organization of work in terms of

normative or optimizing considerations, or of grounding typologies of work organizations upon some formal indices of organizational structure or with respect to some other feature of the organization: goals, size, raw materials (things, people, symbols), technology or control. (See, for example, M. Weber, *The Theory of Social and Economic Organization*. Translated and edited by A. M. Henderson and T. Parsons (New York: Oxford University Press, 1947); C. Perrow, *Complex Organizations* (Glenview, Ill.: Scott Foresman, 1972); R. Bendix, *Work and Authority in Industry* (New York: Wiley, 1956); C. Barnard, *The Function of the Executive* (Cambridge, Mass.: Harvard University Press, 1938); C. Barnard, *Organization and Management* (Cambridge, Mass.: Harvard University Press, 1949); F. W. Taylor, *Principles of Scientific Management* (1911) (New York: Norton, 1967).

By far the most interesting have been those based on technology and control. With respect to the first, however, what is striking about the conventional technological approach to the organization of work is that it assumed a typology of work processes based upon a simple technological distinction between routine and non-routine tasks. Indeed, Hickson in a review of the literature, found a striking convergence upon the specificity of role prescriptions -- that is, upon high or low specificity -- in typologies of work organization that were basically analogous to the routine -- non-routine distinction. But despite the heuristic value of such analyses -- and of those similar to them, such as Woodward's distinction between production types, unit, mass and process, and Laurie and Schmitz's distinction between artisan workshops, sweatshops, manufactories, and large and small factories, in the final analysis as Woodward concluded, technological approaches cannot explain the organization of work. (See D. J. Hickson, "A Convergence in Organizational Theory," *Administrative Quarterly* 11 (September, 1966), 224-37; J. Woodward, *Industrial Organization: Theory and Practice* (London: Oxford University Press, 1965); J. Hage and M. Aiken, "Routine Technology, Social Structure, and Organizational Goals," *Administrative Science Quarterly* 14 (1969), 366-77; T. Reeves and J. Woodward, "The Study of Managerial Control," in J. Woodward, ed., *Industrial Organization: Behavior and Control*; P. Blau and W. R. Scott, *Formal Organizations* (San Francisco: Chandler, 1962); L. G. Hrebiniak, "Job Technology, Supervision, and Work Group Structure," *Administrative Science Quarterly* 19 (1974), 395-411; E. P. Hollander and J. W. Julian, "Contemporary Trends in the Analysis of Leadership Process," *Psychological Bulletin* 71 (1969), 387-97; L. B. Mohr, "Organizational Structure," *Administrative Science Quarterly* 16 (1971), 444-59; D. Montgomery, "Workers Control of Machine Production in the Nineteenth Century," Labor History 17 (4), (Fall, 1976), 487-509; B. Laurie and M. Schmitz, "Manufacture and Productivity: The Making of an Industrial Base," Philadelphia Social History Project, 1978.)

The relationship between technology and work structure, she argued, remains inexplicable unless the structure of control is considered. Historical research corroborates this conclusion: for example, that the fundamental characteristic of the industrial revolution was not mechanization but the reorganization of the social relations of the production process in order to place control of the work process in the hands of employers; that subsequent technological changes throughout the nineteenth and twentieth century were shaped by similar motives; and that employers were preoccupied for the most part less with the technical skills of their workers than with the work habits and attitudes of their employees and with the imposition of an "industrial morality" upon them. (See E. P. Thompson, The Making of the English Working Class (Hammondsworth, Middlesex: Penguin, 1963); E. P. Thompson, "Time, Work, Discipline and Industrial Capitalism," Past and Present 38, 1971; S. Haber, Efficiency and Uplift (Chicago: University of Chicago Press, 1964); A. C. Wallace, Rockdale: The Growth of an American Village in the Early Industrial Revolution (New York: Knopf, 1978); P. Faler, "Cultural Aspects of the Industrial Revolution," Labor History 15 (3), (Summer, 1974), 367-94; P. Faler and A. Dawley, "Working Class Culture and Politics in the Industrial Revolution," Journal of Social History 10 (1), (Summer, 1976), 446-81; F. J. Roethlisberger and W. J. Dickson, Management and the Worker (Cambridge, Mass.: Harvard University Press, 1947); H. Gutman, "Work Culture and Society in Industrializing America, 1815-1919," American Historical Review, 78 (June, 1973); D. Nelson, Managers and Workers (Madison: University of Wisconsin Press, 1975); D. F. Noble, America By Design: Science, Technology, and the Rise of Corporate Capitalism (New York: Knopf, 1977).

Further sociological research, focused upon the relationship between organization of work groups and the organization of work, also supports their arguments. Organizational theorists and managerial ideologies have long been aware of the intimate relationship between the two: there is a clear consensus that the structure of work activities affects group cohesion, interdependence among workers, friendships, competition and the propensity to strike, and that these outcomes are affected by the internal structuring of work relations (i.e., worker-worker relations), management-worker relations, and the method of evaluation. Others have focused on developing typologies of power in work settings. Etzioni, for example, distinguished between coercive, economic and normative organizations, the first characterized by alienated participant involvement and the exercise of coercive power to enforce compliance, the second by calculative participant involvement and remunerative power (wages) to gain compliance, and the third by normative involvement and normative power. Alvin Gouldner distinguished between democratic, authoritarian and laissez-faire leadership. Human relations theorists distinguish between "good" leadership (democratic, employee-centered, human relations-centered) and "bad" leadership (authoritarian, production-centered, preoccupied with bureaucratic rules) on the basis of the ability of the former to generate high morale and consequently high productivity. Group relations theorists like MacGregor distinguish between "theory X" and "theory Y" bureaucratic/pyramidal and humanistic/democratic value systems; Likert distinguishes between task oriented, highly structured authoritarian management styles, and a relationships-oriented management style based on teamwork, mutual trust and confidence. Others including March and Simon, and Edwards, have pushed further into the dynamics of organizational control. March and Simon, for example, reject the conventional view that only rules direct or control behavior in organization; instead, they argue that the vast proportion of activity in organizations goes on without personal directives and supervision; they calculate that this "residue" accounts for up to 80 percent of organizational behavior, and can be explained in terms of such general concepts as habit, training socialization or routine, and such mechanisms as uncertainty absorption, organizational vocabularies, programmed tasks, procedural and substantive programs, standardization of raw materials, frequency of communication channel usage, and interdependence of units and programs.

See K. MacNeil, "Understanding Organizational Power: Building on the Weberian Legacy," Administrative Science Quarterly 23 (March, 1978), 65-90; G. Y. March and H. A. Simon, Organization (New York: Wiley, 1958); G. Homans, The Human Group (New York: Harcourt Brace Jovanovich, 1950); E. Mayo, The Social Problems of an Industrial Civilization (New York: McGraw-Hill, 1960); D. McGregor, The Human Side of Enterprise (New York: McGraw-Hill, 1960); L. R. Sayles, Behavior of Industrial Work Groups (New York: Wiley, 1958); A. Gouldner, Patterns of Industrial Democracy (New York: The Free Press, 1976); A. Etzioni, A Comparative Analysis of Complex Organizations (New York: The Free Press, 1961); F. Herzberg, Work and the Nature of Man (Cleveland: World Publishing Co., 1966); R. M. Cyert and G. C. March, A Behavioral Theory of the Firm (Englewood Cliffs, N.J.:

Prentice Hall, 1963); R. Likert, *New Patterns of Management* (New York: McGraw-Hill, 1961); R. Likert, *The Human Organization* (New York: McGraw-Hill, 1961); F. F. Borgatta and R. F. Bales, "Tasks and Accumulations of Experience as Factors in the Interaction of Small Groups," *Sociometry* 16 (1953), 239-52; C. Argyris, *Interpersonal Competence and Organizational Effectiveness* (Homewood, Ill.: The Dorsey Press, 1962).

130. Gordon, 119-120; P. Doeringer and M. Piore, *Internal Labor Markets and Manpower Analysis* (Lexington, Mass.: D. C. Heath & Co., 1971), 18.

131. Edwards, *Contested Terrain*, 174-177; M. S. Larson, *The Rise of Professionalism* (Berkeley, Calif.: University of California Press, 1977), Ch. 3, 4.

132. Edwards, Chs. 2, 4, 7, 8, 9.

133. *Ibid.*, 178.

134. *Ibid.*, 179.

135. *Ibid.*, 180.

136. P. Doeringer and M. Piore, *Internal Labor Markets and Manpower Analysis* (Lexington, Mass.: D. C. Heath, 1971).

137. M. S. Larson, *The Rise of Professionalism* (Berkeley, Calif.: University of California Press, 1977) Pt. I; J. Kett, *Rites of Passage* (New York: Basic Books, 1977) 153-157.

138. R. Merton, "Bureaucratic Structure and Personality," in *Social Theory and Social Structure* (Revised Edition). (New York: Free Press, 1957); R. Callahan, *Education and the Cult of Efficiency* (Chicago: University of Chicago Press, 1962); M. Katz, *Class Bureaucracy and Schools* (New York: Praeger, 1971); J. M. Cronin, *The Control of Urban Schools* (New York: Free Press, 1973).

139. D. Tyack, *The One Best System* (Cambridge: Harvard University Press, 1974), Pts. II and III.

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of Organizations (Chicago: Rand McNally, 1965); Dreeben, op.cit.

141. R. Dreeben, "American Schooling: Patterns and Processes of Stability and Change," in B. Barber and A. Inkeles (eds.), Stability and Social Change

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144. B. Bernstein, Class Codes and Control, Vol. 3 (London: Routledge and Kegan Paul, 1977).

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146. Bowles and Gintis, 131, 139.

147. Willis, 171.

148. For a useful discussion, see M. Apple, "The New Sociology of Education: Analyzing Cultural and Economic Reproduction," Harvard Educational Review 48, 4 (November, 1978), 495-503.

149. D. Kamens, "Legitimating Myths and Educational Organization: The Relationship Between Organizational Ideology and Formal Structure," American Sociological Review 41 (April, 1977), 208-19; J. W. Meyer, "The Effects of Education as an Institution," American Journal of Sociology 83, 1, 1977.

150. C. Jencks, Inequality (New York: Harper & Row, 1973), 135.

151. Bowles and Gintis, 235-239.

152. R. Corwin, "Education and the Sociology of Complex Organizations," in D. A. Hansen and G. E. Gerstl, eds., On Education: Sociological Perspectives (New York: Wiley, 1967); C. E. Bidwell, "The School as a Formal Organization," in J. G. March (ed.) Handbook of Organizations (Chicago: Rand McNally, 1965), Ch. 23; D. C. Lortie, "The Balance of Control and Autonomy in Elementary School Teaching," in A. Etzioni, ed., The Semi-Professions and Their Organizations (New York: Free Press, 1969); D. C. Lortie, "Observations on Teaching as Work," in R. Travers, ed., Second Handbook of Teaching (Chicago: Rand McNally, 1973).

153. See W. Heydebrand, "Organizational Contradictions in Public Bureaucracies: Toward a Marxist Theory of Organizations,"

The Sociological Quarterly 18 (Winter, 1977), 83-107; J. K. Benson, "Organizations: A Dialectical View," Administrative Science Quarterly 22 (March, 1977), 1-21; D. Hogan and M. Murphy, "Efficiency versus Democracy: Centralization and the Chicago Teachers Federation." Unpublished paper, University of Pennsylvania, 1979.

154. D. Hogan, "Capitalism and Schooling," Ch. 7, 8; P. Violas, The Training of the Urban Working Class (Chicago: Rand McNally, 1978); M. Lazerson and W. N. Grubb, American Education and Vocationalism (New York: Teachers College Press, 1977).

155. See the papers by Cuban, Kett, Grubb and Lazerson, and Anderson in the present volume.

156. See Katz, Stern and Doucet; Katz, "The Institutional State"; C. Lasch, Haven in a Heartless World (New York: Basic Books, 1978).

157. See Dawley, op cit.; G. Wood, The Creation of the American Republic (New York: Norton, 1972); J. G. A. Pocock, The Machiavellian Moment (Princeton: Princeton University Press, 1975); B. Bailyn, et al., The Great Republic (Lexington, Mass.: D. C. Heath, 1977) esp. vol. 1; D. Montgomery, Beyond Equality (New York: Vintage, 1967).

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159. Pocock, Ch. 14, 15; A. Hirschman, The Passions and the Interests (Ptinceton: Princeton University Press, 1977) esp. Pt. I; M. Weber, The Protestant Ethic and the Spirit of Capitalism (New York: Scribners, 1958); C. B. MacPherson, The Political Theory of Possessive Individualism (London: Oxford University Press, 1962); A. de Tocqueville, Democracy in America, ed. by J. P. Mayer (New York: Anchor, 1969) Vol. II; L. Hartz, The Liberal Tradition in America (New York: Harcourt Brace and World, 1955); H. Croly, The Promise of American Life (Indianapolis: Bobbs Merrill, 1965 (1909)); P. Steinfels, The Neo Conservatives (New York: Simon & Schuster, 1979); P. Bachrach, The Theory of

Democratic Elitism (Boston: Little Brown & Co., 1967); E. A. Purcell, *The Crisis of Democratic Theory* (Lexington, Kentucky: The University Press of Kentucky, 1973); J. H. Schaar, "Equality of Opportunity and Beyond," *Nomos IX* in R. Pennock & M. Chapman, eds., (New York: Atherton Press, 1967); R. H. Turner, "Modes of Social Ascent Through Education: Sponsored and Contest Mobility," in Bendix and Lipset, *op cit*., 449-458; A. Gouldner, *The Coming Crisis of Western Sociology* (London: Heinemann, 1970) esp. Ch. 3; C. Karier, *Shaping the American Educational State* (New York: Free Press, 1976); G. Hodgson, *America in Our Time* (New York: Vintage, 1976) esp. Ch. 4, 13, 24.

160. S. Haber, *Efficiency and Uplift* (Chicago: University of Chicago Press, 1964); T. Haskell, *The Emergence of Professional Social Science: The American Social Science Association and the 19th Century Crisis of Authority* (Urbana: University of Illinois Press, 1976); B. Bledstein, *The Culture of Professionalism* (New York: Norton, 1976); L. Baritz, *Servants of Power* (Middletown, Conn.: Wesleyan University Press, 1961).

161. The history of vocationalism in education is surveyed in Grubb and Lazerson, *American Education and Vocationalism*; see also Hogan, "Capitalism and Schooling," Ch. 7, 8; Violas, Ch. 5,6; L. Cremin, *The Transformation of the School* (New York: Vintage, 1961) Ch. 2; J. Spring, *The Sorting Machine* (New York: David McKay, 1976); Bowles and Gintis, Ch. 7, 8. One of the few voices crying in the wilderness against vocationalism has been the lonely voice of R. Freeman Butts. See his "Assaults on a Great Idea," *The Nation*, April 30, 1973.

"MARRY, STITCH, DIE, OR DO WORSE":
EDUCATING WOMEN FOR WORK IN THE AMERICAN REPUBLIC

Geraldine Joncich Clifford

The nineteenth-century author and lecturer Caroline Dall warned that to deprive women of education was to keep them from decently-rewarded and respected employments: Society's command to the uneducated woman is "Marry, stitch, die, or do worse."[1] Forced into teaching at age 19 by her father's business reverses and later trapped in a difficult marriage, Dall was one of many Americans struggling to resolve personally the many-sided "Woman Question."

Across the continent, near Fidalgo, Washington Territory, after a family talk prompted by her father's "blues about me," Carrie White confided to her diary, "I have never longed to be a man--[I] am glad that I am a woman--but sometimes my womanhood is almost a burden." This Caroline, two generations younger than Dall but also a sometimes teacher, was confused by her parents' seemingly contradictory behavior. Following one clash with her father, she wrote:

> He then said, "you ought to be willing to do something to make a living." I replied that I was and thought I did do something towards it. But the idea of father making such a speech. Is he growing tired of me and thinks it would be a relief to have me off his hands? I wonder if I had better try it! But when I had a small position offered me in Whitman College they did not want me to accept it. Well if the time does ever come when they think me a burden it will be very very bitter for me and I shall almost regret that I did not continue teaching and so make a calling for myself where I could be independent.[2]

For these women, as for progressively greater numbers of American women through the 19th and 20th centuries, the educational question became less that of access to schooling than the one, posed in Woman's Dilemma: "the rather damaging one of what they are going to do with their learning after they get it."[3] Many educated, middle-class wives yearned for work careers, while young shop girls and factory hands were set on retirement after marriage.[4]

Not all agonized about it, of course. Economic pressure denied choice to some and cultural imperatives caused others to reject alternatives. Nonetheless, economic and social change and cross-cultural contacts were raising new possibilities. While society debated and educators made their nervous, inconclusive adjustments to the fact of women's increasingly common employment outside the home, individuals and families reached decisions about work. Increasingly, the actions they took respecting schooling affected women's lives by their occupational ramifications.

In 1800 women's share of the labor force was a mere 4.6%. In 1850 only one worker in ten in gainful employment was a woman, but a slow upward trend was developing. Females age 14 and older were 18.3% of the labor force in 1900 and 20.4% in 1920. Their participation rates continued growing despite the Depression years of the 1930s and the massive layoffs of women workers after World War II, and the 1950 Census showed women to be 27.9% of the work force. Recent increases have been dramatic: to 37.1% on 1960, 42.8% in 1970; and 46% in 1978.[5] Three other changes in women's employment are noteworthy. First was the shift from manufacturing and domestic labor to white-collar work; between 1900 and 1940 the percentages of women in non-manual occupations grew from 28% to 45%. Second was the lengthening of the average woman worker's expected employment life: from the frequently-cited figure of seven years in 1890 to twenty-five years in 1960.[6] Third was the development of a strong association between the amount of formal schooling gained and occupational placement; in 1973 female high school graduates were two and a half times more likely to hold clerical and sales jobs than were non-graduates, and half as likely to work in the service and operative sectors.[7] [See Appendix 1 for a chart relating occupational distribution and education.]

Little is known of the ways in which home lives and school lives prepared and encouraged girls and women to join the labor force. It is important to learn how the roles of home and school changed over time in shaping consciousness of work and of choices among eligible occupations, and the extent to which efforts at vocational guidance and vocational preparation were shaped by factors associated with social class, ethnicity, region, and gender. This investigation addresses these issues. It began with the expectation that the incorporation of data about individual women in America would result in fuller understanding of how whole ranges of decisions have been made about work and education. Against the background of social and economic change it was imagined that women's occupational histories would prove to be the product of highly variable interactions of family, self, and gender. The lives introduced throughout this essay will indeed suggest differing patterns by which idiosyncratic family experiences, more general elements of family culture based upon ethnicity, and family life as positioned within the strata of social and occupational class have operated upon and with gender and other personal characteristics. Life-history data also illustrate the influence of broadly-experienced phenomena--such as demographic shifts, the development of universal public schooling, the growing needs of the economy for large pools of cheap wage labor, and the rise of new occupations.

Yet, if the story of women's work is made more richly textured and complex, it has also been made more starkly simple. The social, as distinct from the personal, fact of gender emerges as having had overpowering influence. Individual-level data--when analyzed alongside histories of work in America, studies of women in the work force, theories of women's education, and discussions of vocational education--together lead to one inescapable conclusion: For women, it is the mere fact of their gender which has, more than any other, determined their places in the work world. More than social class, parental occupation, region lived in, or ethnic background, their sex has largely specified the kinds of occupations women may enter, the patterns of entry and leaving the work force during the life cycle, the duration of their participation in the labor force, and their earnings, vulnerability to unemployment, and opportunities for advancement relative to male workers. While social and economic developments have altered over time the rates and profiles of female participation in paid employment, gender has maintained its historical prepotency.

This essay will further suggest how anomalous has been the role of education, especially schooling. It proved unable to satisfy either the aspirations of radical feminists for equal access to all work or of conservative men and women for an enhanced commitment to homemaking as woman's "true vocation." It will be argued, but not proved, that the social character of schooling, as well as the pride of accomplishment which female students experienced, encouraged subsequent decisions to enter the labor force—decisions not encumbered by the fact that women workers continued to be concentrated in "women's fields": low-paying or low status occupations.

Introduction: Educating the Sexes for Work

The historical period may, like this essay, be divided into two parts. In each, the major occupations of women will be surveyed and their educational requirements identified. In the "pre-vocational education" era, essentially the late 18th and the 19th centuries, schooling was not talked about with reference to objectives of direct vocational preparation or vocational guidance. For both sexes, job skills were to be learned at the work site. For males, formal and informal apprenticeships and practical experience eased the transitions from predominantly agrarian to commercial and industrial labor. For females, there were few clear alternatives to home instruction. But, as household life changed and alternatives came into view many mothers and aunts became less adequate as role models and imparters of economic skills. By the early twentieth century, it was even claimed that most housewives were inadequately equipped to teach domestic skills to their hired girls.[8]

In an age when schools and jobs were not "matched," length of school attendance did not predict occupational entry or persistence. Persons with similar or identical educational backgrounds might work in widely divergent occupations. Conversely, the various performers of a given vocation might have quite discrepant educational credentials. The majority of Americans schooled in the nineteenth century attended non-urban common schools. By mid-century those attending longest were probably girls and those boys looking primarily to occupy spare time; boys with clear occupational goals had departed to gain work experience or, in fewer cases, to attend more advanced schools.[9] Oliver Johnson, recalling his boyhood in Indiana in the 1840s, wrote, "Boys and girls could go to school just as long as they wanted to, or as long as they paid for their term. .... I think a lot of us kept going to school more for a pastime and to get away from the monotony of home life than we did for book learning."[10] Neither schooling nor work was as rigidly age-graded as it would become--and youth moved quite freely in and out of school, work, and even their families of origin.

Below the college level the amounts of schooling received by boys and girls became quite similar as the 19th century matured. Most of that schooling was, moreover, not gender specific--despite some efforts to have it so. The Kanawha County, West Virginia records for 1840 list the boys' curriculum as reading, writing, and arithmetic, and the girls as reading and spelling;

whether practice conformed is not recorded.[11] When Colburn's Intellectual Arithmetic (1821) was introduced, some female students were reportedly told, "If you expect to become widows and have to carry pork to market, it may be well enough to study mental arithmetic."[12] Regardless, Colburn's text became a staple for generations of students of either sex. The children's reader, Good Behavior (1881), specified that girls get precedence coming and going at recesses; imperfectly achieved at best, such decorum was probably far better observed than was the provision of separate entrances, physical dividers, and segregated departments. Notwithstanding a literature that urged physical separation, teacher and student diaries suggest that practice departed widely from precept.[13] The clearest case of discrimination against women involved colleges, most of which did not admit women before 1865. In that year, however, only one percent of all American students were collegians. Even access to the traditional learned professions could be gained through varying combinations of self-study, apprenticeship, and non-collegiate schools.

In 1876, however, the National Education Association created an Industrial Section, acknowledging the appearance of intense interest in the issue of adapting schools to students' vocational futures.[14] Many youngsters, age 14 or older, were neither in school nor prepared by schooling for the work they assumed or hoped to find. Numerous studies reported their dislike for school and failure to see its worth. Some educators advocated job training in the new junior high schools, in trade schools, or vocational high schools. Even for females some others stressed manual training, the development of eye and hand, as the broadest foundation of an industrial education which was being described as the birthright of every American child.[15] While more students were found in general education than in job classes in 1920, for example, it has been argued that vocationalism nonetheless triumphed with the acceptance given to the principle that schools had a primary obligation to prepare youth for jobs, with the appearance of vocational guidance, and with the differentiation of curricula according to the probable occupational destiny of the pupil.[16]

In the "vocational education era" schooling became a sufficiently universal and extended experience that levels of completed schooling broadly, if crudely, came to define occupational placement, but in ways that preserved much of the earlier separation of the distinctive spheres of men and women workers. The second part of this paper will outline the appearance of job training as an explicit aim of public education and examine the implications of women's slightly greater persistence as grammar grades' students, their numerical dominance of the high schools' graduating classes, and their rapidly-gained admissibility into most colleges. The fact that gender continued to structure employment cannot be evaded; it links the two periods in crucial ways.

The School of Life:
The Pre-Vocational Education Era

In the nineteenth-century almost all women labored. Large numbers worked in and around the home, in the factory, and in the school house. These employments demonstrated the permeability of women's occupations to persons of differing educational qualifications. More important they demonstrated society's capacity to use gender stereotypes to meet new demands for labor.

The Young Worker at Home Whether in her own family's or another's household, the home worker inherited an ages-old pattern of domestic employment--so taken for granted that Census enumerators long ignored its economic benefits. While labor shortages may have enhanced women's value--and occasionally widened their range of duties beyond the house, gardens, poultry yard, and pasture—gender continued to define expected work roles.[17] On the Indiana frontier, a mother of three wrote

> If ever there was true happiness on earth it is in our own family.... Here everyone appears to be anxious to do what is right,...each one Cheerfully performs the duty of his station. .... I stay at home and...feel a great pleasure in the performance of what I consider my duty.[18]

While jobs were defined, they were also shared—especially between women, children, servants, and other dependents. As children grew, they assumed more of the domestic work, under maternal supervision. Large farm families, like the Rogers of Iowa, dispensed with hired help as the sons took over; this reduced, at least, the number for whom the girls and women cooked, sewed, and laundered.[19] By their wedding day, daughters had learned virtually all they needed to know to run a household. If they did not marry, or returned to their childhood homes as marital casualties or widows, the care of aging parents or family unfortunates was honorable employment. Aunt Polly was the Martha of the Luellen family in Pennsylvania, "the devoted slave" of her parents, a crippled brother, and imbecile sister.[20] Even so, an astute girl, like Florence Peck, might reflect on the fact that when her grandmother died, her Aunt Lucy had her "life work taken away."[21] Circumstances permitting, a girl might choose, then, to spend her own life differently.

Many nineteenth-century homes produced both articles and services for home consumption and for cash or barter. On a Kansas farm, John Ise's mother did laundry for bachelors and widowers, along with her butter and egg business and daily chores.[22] More indicative of economic change, however, was the locating in New England farm houses of the businesses of sewing shoes, spinning yarn, and weaving cloth. By 1800, women were sewing the uppers of shoes and boots and, by the 1830s, sixty percent of Lynn's total output was produced in far-flung domestic manufacture.[23]

The arts and crafts of textiles were historically women's work. Indentures had commonly specified that girls "be instructed in the art of a spinster, seamster and housekeeping"--in the words of Phoebe Carpenter's 1803 agreement with Enoch Cate concerning her daughter Sarah.[24] In the 1830s Benjamin Barnard's four daughters--but never his three sons--might all be spinning "flax and tow in the spring and wool in summer."[25] As tow spinning grew less important and other household duties lighter, Nancy Barnard was permitted to leave her Vermont home for the academy in Westminster, Massachusetts, where there were relative to board her in exchange for housework. In the case of Jane Conine of Wyoming County, New York, it was domestic strife--a stepmother whom she loathed--that drove her, around 1850, to live with various families as a seamstress.[26] Like Nancy Barnard she soon ended up in that other extension of "woman's sphere"--presiding over a school--before taking final refuge running an Indiana household as John Hawkins' wife.

Kathryn Sklar argues convincingly that with the expansion of the household manufacturing system in late eighteenth and early nineteenth century New England, and given their possession of domestic skills, many girls were enabled both to reimburse their parents for the small costs of district schooling and to purchase additional education in the new female seminaries and coeducational academies--which proliferated to meet their demands. Thereby, young women also enhanced their employability as teachers in common schools and academies.[27] The additional element in this equation was the reduced demand for young women's labors at home. Especially in the Northwest, women were slowly losing some of their productive, and reproductive, functions. Except in new areas of settlement, household manufacture was increasingly restricted to household use; first in urban middle-class families, the "manufacturing mother" was becoming the housewife. Meanwhile, more men were leaving the household to work, going to sea, or taking up land in the west. Until the 1890s the surplus of permanently single women grew progressively larger and the age of first marriage rose. Among the marrying birth rates dropped. On the average, women in 1800 had 7.04 children; in 1850 the figure was 5.42; in 1900 it was 3,56.[28] Lesser infant and child mortality meant that proportionately more children survived, but as women were pregnant and nursing a much reduced part of their lives they required less assistance of their daughters. The fact of smaller families combined with more available schooling further to diminish child-care demands on daughters--with new educational and work careers in the offing.

The Factory Girl

When 17-year old Sally Rice left her family in Vermont in 1838 to work in the Holmes' farmhouse near Union Village, New York, she followed an ancient tradition: Domestic service historically offered girls housing, family protection, and employment that used home-learned skills. Of her situation Sally wrote,

> They are very anxious that I should live with them as long as I work out anywhere.... I have got so that by next summer if I could stay I could begin to lay up something. I am most 19 years old. I must of course have something of my own before many more years have passed over my head. And where is that something coming from if I go home and earn nothing. What can we get off that rocky farm.[29]

There were, however, new alternatives to domestic labor for farmers' daughters. When the Boston Manufacturing Company opened its large mill in Waltham in 1814 it found farm girls eager to earn dowry money, add to family income, or to help a brother into college.[30] By the 1830s and '40s the Lowell mills employed thousands of young women and children--girls outnumbering boys five to one. In 1845 Sally Rice explained to her father about her decision to work in Connecticut's Masonville mill: "Well knowing that you were dolefully prejudiced against a cotton factory and being no less prejudiced myself, I thought it best to wait and see how I prospered." While visiting her young man's sisters, she was asked to learn to weave, but

> I did not fall in with the idea at all because I well knew that I should not like it as well as housework and knowing that you would not approve of my working in the mill. But when I considered that I had got myself to take care of, I knew I ought to do [it] that way I can make the most and save the most.[31]

The Lowell mills' dormitories, rules of conduct, and regulated living reflected expectations about home-like protections; long hours of hard work, sobriety, and church attendance "in a measure reflected the social standard and practices of their homes."[32] Sally Rice, too, found a church and entered a routine of twelve to fourteen-hour days tending three pounding looms. Machinery had so reduced the level of necessary skills that she learned the work in one week. Since mill employment was readily learned it was easily abandoned. Like her contemporaries, Sally Rice intended a brief career:

> I like it quite well as I expected but not as well as housework. To be sure it is a noisy place and we are confined more than I like to be. I do not wear out my clothes and shoes as I do when I do housework. If I can make 2 dollars per week besides my board and save my clothes and shoes I think it will be better than to do housework for nine shillings. I mean for a year or two. I should not want to spend my days in a mill.[33]

Sally Rice's was only a common school education. Yet, these mill operatives possessed more formal schooling than characterized the Irish girls who succeeded them in Lowell or Cohoes, or the Italian women workers of Buffalo and Providence, or the North Carolina girls who joined up when the textile mills went South late in the century. That nexus of factory employment and educational aspiration, reported in Lucy Larcom's widely-read reminiscences, was more than myth. Recalling her experiences in Lowell around 1837, where she alternated work and school from age 14, one woman explained, "I was ambitious to do something for myself in the way of earning money to pay my expenses at an Academy; and being too young to teach school in the country, not strong enough to do housework or learn a trade, I went into the card-room on the Fremont Corporation."[34] A Clinton, Massachusetts factory worker, who nightly studied Weld's Grammar, explained, in 1851, why she meant to enter Oberlin College:

> I have earned enough to school me awhile, & have not I a right to do so, or must I go home, like a dutiful girl, place the money in father's hand & then there goes all my hard earnings, within prison walls, my sleepless nights & gloomy days, & all for what. ... But if I go to Oberlin I take comfort & forget all these long wearisome mill days & perhaps I prepare myself for usefulness in this life. .... If I am necessarily detained at home I shall think all is for the best. I merely wish to go because I think it the best way of spending the money I have worked so hard to earn.[35]

Of course, among prosperous families factory employment was regarded as evidence of misfortune rather than of opportunity. After a visit to Greenfield in 1837, Mary Todd reassured her friends that the rumors about the Farnums were ill-founded: "Their Father did not fail as was reported, neither are the girls working in a factory."[36] Before the Civil War, factory women could earn and save more than by teaching, given the seasonal and short-term nature of the common schools. Nonetheless, manufacturing jobs were to become less important to women: In 1850 women were 24% of all manufacturing employees; in 1900 their share would be 19%. The native daughters of New England Protestants increasingly abandoned the mills to immigrant job-seekers, and the factory came to represent in many more minds the work site of the unlucky or unambitious. When orphaned Mary Bartlett left her cousin's house in 1870 and chose George Nye for her guardian, it was reported that "Mrs. Nye said if she couldn't get a school she would have to work in the factory."[37] For Mary Bartlett, however, and for any others anxious or needing to make their own way, if local schools did not require teachers there was "The West." An example was Urania Richards of Gill, Massachusetts, who left the Lowell mills around 1840 to teach in Ohio. Reporting her marriage in 1847, the Lowell Voice of Industry advised "Sisters of New England, 'Go ye and do likewise.'"[38]

The Schoolmistress It was sometimes argued that to send Eastern teachers to educate and Christianize the West was futile and wasteful, that such organizations as the Ladies' Society for the Promotion of Education at the West and the Board of National Popular Education would quickly lose their recruits to the "School for Life." In 1858, for example, the Board of National Popular Education reported that it had sent 481 teachers to the West; 75 of these had married. But it was considered a "source of no-little satisfaction, that we have been instrumental in furnishing seventy-five good wives to as many gentlemen of the West." Indeed, the New York Evangelist argued, in 1846, that

> In regard to foreseeking the teachers office for domestic alliances, which is predicted as a serious embarrassment, no evil or disappointment is anticipated; for it is believed, that in all cases, the school room is the truest avenue to domestic happiness. Every such departure can be made good by new recruits, who will find their best friends and firmest supporters in their predecessors, settled around them as the wives and mothers of the most influential members of society.[39]

The belief that preparation for teaching and experience in the classroom are compatible with women's ultimate career as wife and mother was widely claimed in the nineteenth century, and undoubtedly continues to influence the career decisions of young women. But, the probability that the high rate of turnover of teachers due to marriage also created a powerful pro-school lobby is an intriguing issue for future study.

Knowing the extent of the population of women-who-once-taught, in comparison with the numbers of women teaching at one point in time, conveys a better sense of the rapidity of turnover in the female teaching force than comes from knowing that the average teacher had a career of only two or three years' duration. It also makes clear the large share that teaching had of the outside work experience of women in a century when most women remained at home. Data for Massachusetts before the Civil War, at which time women numerically dominated the schoolhouses, show that teaching did not constitute in any given year more than 2% of the employment of all white women, ages 15-60; the vast majority of such women were employed, of course, in their own or related households. Of all white women of the state, however, one in five had taught at some time in her life and, probably, one in four of the native-born had been teachers.[40]

To prepare teachers, Massachusetts opened the first public normal school in 1839; by 1860 there were four in the state: two for women and two coeducational institutions. Frances Merritt was a "normalite" at all-female Framingham in 1854 and 1855. Her diary records that her instructor raised the issue of "woman's mission," and gives her reactions:

> There is so much truth in what Mr. Stearns said to-day of woman's mission. His view seems to be just the right one.
>
> Better exercise the influence God has given her over the heart, mind and will of all mankind in the most lovely and becoming manner, than to speak about woman's rights, or to step out of her Heaven-ordained sphere.
>
> I am glad these rights have been talked of, nevertheless, for I think that many true women, after seeing a few experiments tried, will rejoice more heartily in the lot to which God has appointed them, and to be more awake to its high and holy requirements.[41]

Although the nation's number of public normal schools grew from 13 in 1860 to 135 in 1890, they educated a small proportion of all teachers. Most teachers acquired elsewhere whatever passed for occupational skills--and whatever understanding they reached of the relationship of their employment to the destiny dictated by their gender. Even as normal schools proliferated their students had frequently taught before their entrance--their enrollment signifying a degree of careerism and desire to advance in the profession, rather than an initial preparation for teaching. In the 1874 class of the Illinois State Normal School, for example, all of the 15 men had teaching experience, five had been principals of graded schools and one a county superintendent; the teaching experience of the 18 women totaled 20.8 years.[42]

A small but important segment of teachers entered from female seminaries and coeducational academies that promised them disciplined study, to enable the female "to regulate her own mind, and to be useful to others."[43] Many such institutions educated teachers incidentally. In the process of appealing to more serious-minded girls, by teaching them algebra and geology, however, they were also giving them the equipment for employment as teachers--even in the higher grades.[44] Others, like Mount Holyoke, had been founded to prepare good Christians to be good teachers; in its first half-century, eighty percent or more of its students became teachers--without benefit of courses in pedagogy or practice in model schools. Along with supplying teachers for the proliferating seminaries of the South and West, Mount Holyoke sent women abroad, to the foreign mission field, South to teach reading and Bible study on Sundays to factory-employed children and later as "teachers of the contraband," and to Oklahoma to teach in schools for Indians.[45] They found that mission schools also clearly recognized the different destinies of men and women: While their boys were taught farming, livestock raising, and manual arts, their girls received "constant instruction in needle, household, and all kinds of work that properly fall to the share of woman in civilized domestic economy."[46] Organized on the manual labor principle, the Indian schools also required different work of the two sexes--as had Oberlin College and the scores of other manual labor schools which were so popular in the 1830s and 1840s. Thus, school experiences reinforced the lessons learned at home--in childhood--about the respective spheres and appropriate conduct of each sex.

While teaching in mission schools and distant climes glamorized teaching, the preponderance of women teachers in the nineteenth century remained within the family orbit, at least through their initial experiences as teachers. They received whatever education in teaching they possessed as students in the undifferentiated local common schools--preparation augmented, perhaps, by occasional county or state teachers' meetings ("institutes") where most had their first opportunity to form new identities and ties that transcended those of family and neighborhood. Despite the pattern wherein experienced teachers exercised an expending sense of independence by ranging progressively farther from family and familiar surroundings, many novices and short-term teachers stayed put; a study of the living conditions of the women teachers of Michigan in 1860 found 66% living with their families of origin.[47] Throughout the century, family influences continued to ease entry into teaching. As recent historians have found family influences and ties operating in recruiting factory employees, diaries and letters show women were drawn into teaching by the example of relatives and that family initiative and influence filled many teaching posts.[48] Cassie Wiggins became a teacher in large part because her McCollum grandparents had not allowed her mother to attend an academy in Pennsylvania in the 1850s and because of the presence of her Aunt Mag, a teacher, as a boarder in her Iowa home in the '70s.[49] The national landscape was peppered with those families like the Kennedys of Kentucky and Indiana, the Applegates of Oregon, and the Funkhousers of Maryland--families in which teaching seemed as natural as breathing.[50] Relatives filled in for teachers who were sick or had other business, as when Rebecca Bright finished out sister Abbie's term at the Danville, Pennsylvania school so that Abbie could visit in the West.[51] A resident of Wisconsin who combined farming and teaching through the 1850s and '60s, Jabez Brown, inducted sons, daughters, nieces, nephews, and neighbors' children into teaching, talked to officials about hiring them, broadcast the news of school vacancies, and ensured that these youngsters passed the teachers' examinations and collected their wages.[52] When Lydia Murdoch attended the Bellefield School in Pittsburgh in the 1880s "at different times, there were three of one family teaching in that school, relatives of the boss Chris Magee."[53]

Access to the occupation was facilitated by the personalized nature of nineteenth-century teaching, even in city neighborhoods and the colleges. It was further guaranteed by the spread of public and private schooling--outward from New England and Ohio, into rural and urban areas, and upwards well into the years of adolescence--creating students, teaching jobs, and teachers alike. While the daughters of rural England became domestic servants away from home, their American counterparts more often became local teachers. Sheer growth, combined with frequent vacating of positions, expanded opportunities. Of course, the wages were poor and sometimes uncertain: Eunice Will's contract with the Sutherland Spring, Texas School Board specified employment for "three months, or until the public fund appropriated to the community school is exhausted."[54] Women teachers almost always earned less and experienced other discriminations, as in designating a female common school teacher the "assistant teacher" and her male colleague the "master" or "principal" or in addressing male high school teachers as "Professor" and their female counterparts as "Miss."

Since poor wages discouraged male careers in teaching, women met little competition from men; males were both unwilling and unavailable to compete--except, briefly, for high school positions and, later for the administrative posts which were gradually being created and which men came to dominate. If

America was to have universal schooling it would have to conclude that teaching was, as Horace Mann contended, "truly noble," "truly Christian," and "truly feminine" employment. Similarly, as the Roman Catholic Church in America decided that parochial school expansion was a critical need, the proportions of woman religious accordingly were shifted into employment in teaching. Unlike the later period, nuns in Massachusetts in 1870 were employed in such diverse occupations as teaching, hospital work, and social work with orphans, the poor, the handicapped, and the elderly. While, in 1880 in Boston, 40% of the nuns were in hospital and social work, by 1940 that figure had shrunk to 12%.[55]

In Indiana in 1828 "There was no such thing as a women teacher," remembered Oliver Johnson. "It wasn't a woman's job, any more than milking a cow was a man's job."[56] By the time of Johnson's death, in 1907, two of every three public-school teachers in the United States were women; twelve cities in seven states reported hiring only women; 967 of the 1,070 teachers in San Francisco and two-thirds of Los Angeles high school teachers were women. In the nation's urban high schools in 1907, where girls were 57% of the students, women were 53% of the teachers. What aspirations and expectations were raised or confirmed by these experiences? Of what significance was the fact that in the smaller, but apparently growing sector of manual and industrial-training schools, women were less in evidence--being but 36% of the students and 34% of the teachers?[57]

From Latin to "Life":
Vocational Education Comes Into Schools

One of the earliest governmental actions on behalf of the gender-segmented "vocational" education that was to become more common in the late nineteenth century might be that described in an 1832 treaty between the United States and the Winnebago Indians. The federal government agreed to establish a school near Fort Crawford or Prairie du Chien

> for the education, including clothing, board, and lodging, of such Winnebago children as may be voluntarily sent to it: ...said children to be taught reading, writing, and arithmetic, gardening, agriculture, carding, spinning, weaving, and sewing, according to their ages and sexes, and such other branches of useful knowledge as the President of the United States may prescribe.[58]

The first local public school in Texas where manual training, home economics, and elementary agriculture were offered was the Tuleta Agricultural High School, in Bee County. Around 1913 its former principal, Amanda Stolzfus, traveled through east Texas as a Rural School Lecturer for the Extension Department of the University of Texas. Her rough travel notes report her experience somewhere between Troup and Whitehouse, lecturing--on "The Good School"--in a schoolhouse whose windows has been blown out by a recent storm:

> It was most interesting to find a class of forty or fifty high school boys from a small town taught by a frail little woman. The girls were fewer in number, but all these and with others from a lower grade were crowded into one recitation room.... I described the modern school with its vitalized course of study related to the life of the people, to the life the boys and girls expected to lead. I described the work of domestic economy, of manual training and agriculture, and told that today high schools no longer demanded of the young farmer a four year course in Latin. The smile that passed over the fine faces of these pupils told the story that they were all attempting the classical course. There was no science work in the school. Miss Rich told of the value of domestic science both for girls and boys, for the home and community.[59]

Even in rural Texas, some of these girls would be destined to work outside the home, even to leave the area. As early as 1890 nearly half of all women were employed in the years between school and marriage.[60] Accordingly, some educators were arguing that schools must develop a gender-segmented curriculum as a necessary step to meeting the sexes' different vocational education needs. In the assessment of a Canadian supervisor of manual training and household arts courses, equity demanded it but the implementation remained confused:

> Until very recently school systems were organized and courses drawn up on the assumption that the needs of the boy and the needs of the girl were identical and could be best met by a study of the same subjects, but the subjects were chosen, and their content and extent determined almost entirely with reference to the supposed needs of the boy. This assumption dominated the entire system from the kindergarten to the University. It is now admitted that differentiation is necessary, but this differentiation in materials, means and methods has not yet been satisfactorily worked out.[61]

Large city systems--like Boston or New York--developed a few separate high schools for boys or girls, organized around specific occupations, More common and workable for most communities was the differentiation of courses and classes within coeducational junior and senior high schools. Since it aimed "to prepare youth of both sexes for a definite vocation and for efficient industrial citizenship," the Cleveland Technical High School proposed complete separation. As Superintendent Elson explained, in 1909, separation exists "not for reasons of sex, but because of the widely different kind of work;" a technical school should relate academic work closely to the shopwork, "so that the chemistry which the girls have, being chiefly applied chemistry, is different than that taken by the boys."[62]

Vocational educators were limited by academic conservatism and the small size of most high schools--if not by disagreement with the premise that most women became employed only briefly and reluctantly. Hence, academic subjects ordinarily remained coeducational, poorly articulated with vocational education, and little affected by rhetoric about "becoming practical." Where available, "Business English" and "Commercial Math" were found to resemble closely the general courses.[63] The matching of graduates to their intended vocations was imperfect at best. A 1915 study of Boston's Mechanic Arts High School (founded in 1892) showed its graduates and those of the English High School similarly distributed in employment. While the majority of its students wished to go directly into manual trades, the Boston School Committee's purpose for the school was preparation for "advantageous entrance to industry on the business and directive side," and the "controlling aim" of the faculty was to give the fifteen percent interested in higher education a general education and fit them for engineering colleges.[64] The fact that Mechanic Arts was a boys' high school did not deprive girls of opportunity to enter the Massachusetts Institute of Technology, however. M.I.T. admissions data for 1911 reported students entering from Girls' High, English High, and Boston's coeducational neighborhood high schools: the Girls' High entrants had the greatest success rate in terms of M.I.T. class standing.

While Boston had the population and the diversified economy that made school and course differentiation feasible and warrantable, if not rational in its results, most school communities nationwide did not. In the first decade of this century, more than 36% of high school pupils attended schools with three or fewer teachers; one to three-teacher schools were five times more numerous than those with five or ten-teachers and were ten times the number of schools with staffs of ten or more.[65] In 1933, in response to an article challenging educators to enrich the curriculum of the six-teacher, six-year high school, a Nebraska schoolman proposed a plan whereby three teachers could offer all the basic academic subjects, hygiene, and fine arts, plus three vocational courses in grades 7 and 8: practical arts for boys, home-making for girls, and business or agriculture.[66] School size continued to be a factor. A graduate of a small (265 students) mid-Western high school some four decades later observed

> I wanted to take world history, but the principal said there wasn't enough kids for it so I had to take shorthand. And I wanted to take sociology and economics, but because there wasn't enough kids for them either I had to take home ec.[67]

The meaning of differentiation by gender cannot be measured solely by reference to such provisions of courses largely limited to one sex—as happened in the United States. A cross-national study published in 1933 underscored the confounding influence of coeducation. For example, in Germany's system of single-sex schools, except for needlework there was little done along the lines of America's home economics. Yet, in the academic classes taught to girls

> Sex differences are stressed in the selection and handling of the educational materials with a view to developing and guiding the attitudes and interests which it is believed are peculiar to the female sex. .... Girls' education in America, [conversely] is almost inseparable from boys' education since coeducation prevails.[68]

Different societies also approached vocational guidance in various ways. In Europe vocational guidance was developed in employment bureaus and labor exchanges, for the elementary school leaver who would work or attend a full or part-time vocational school.[69] The offering of occupational information in schools was unique to America, with its consequent confusions of vocational and educational guidance but with greater likelihood that girls would receive some earlier orientation to the work world. It was charged that women teachers could not give adequate vocational guidance, and that parochial school faculties were even less equipped by trade and industrial experience.[70] Nonetheless, teachers often responded to their students' desire for job information. St. Louis teachers surveyed occupations and publicized the results, urging girls to prepare for jobs.[71] New York's Manhattan Trade School for Girls took groups of the City's eighth graders for a two weeks' orientation to occupational possibilities, testing them on various commercial and industrial performance tests.[72] A committee of teachers working with the Bureau of Vocational Guidance of the Buffalo Chamber of Commerce urged teachers to caution any girls who wanted a job to escape from school: "Those who find it hard to get along in school with the assistance of their teachers will find it much harder to get along in business or in the industrial field, where no one is especially concerned as to whether they succeed or fail."[73] Despite these and other efforts, the American Youth Commission study reported, in 1938, that among those who had received vocational guidance, girls were somewhat less likely to have found it satisfactory; and the largest group of former students to have failed to receive guidance was homemakers.[74]

"Vocational" courses for girls represented accommodations by schoolmen to a variety of realities: a continued commitment to women's prime vocation; a desire to "do something" for the girls while boys went off to their "real" vocational courses; a response to practical scheduling problems, balancing boys' offerings and girls' offerings to preserve the basic coeducational mix in the rest of the curriculum; the hope of prolonging school attendance by adding non-academic subjects; the object of Americanizing the daughters of the immigrants. Adjustment to the fact of women's employment may well have been the least pressing demand. Nonetheless, a women's position among workers was coming to be broadly defined by the amount, if not the kind, of formal schooling she possessed. The girl who left school for work after the eighth grade typically entered different employments than did the girl with high school experience. The professions were increasingly restricted to those with college educations.

The Eighth-Grade Graduate For many girls leaving school around age 14, domestic service was their first job. For decades the largest source of employment for women of all ages, it retained importance for those of lesser education, newcomers to America, and racial and ethnic minorities. When Mary and Emma Minesinger, whose mother was a Shoshone Indian, completed their sporadic schooling, acquired during the Hell-Gate School's summer terms, each was hired as a housemaid with Missoula families.[75] In 1920 three-fourths of employed black women worked as farm laborers, servants, and domestic laundresses.[76] As domestic employment slowly shifted its workplace to hotels, office buildings, and institutions, however, its share of all gainfully employed women declined: from 60.7% in 1870 to 18.2% in 1920.

In England, "service" had historically been a major employment for both men and women. An English house-maid explained that, in 1924, her failures in job-hunting left her no occupational alternative. And

> I can only vaguely imagine what my mother must have felt. All that time, and all those books, and all my education—I know she was inarticulate—but I can see now the hurt in her eyes, that after all that, her daughter, her eldest, gawky, clever, talented daughter was going 'into service', as she herself had done at the age of twelve—without education.[77]

Europe's servant shortage was caused by the acquisition of education, job competition, and emigration--which had once supplied many American households with servants. Immigrant women would not stay in service, however. A study of New York's west side around 1912 showed 70% of wage-earning mothers in domestic service and but 5% of their daughters; Democratic America had acquired a "servant problem."[78] Characteristically, some tried to "solve" it with education, proposing that home economics courses and "schools of domestic science" add to their functions--dignifying housework in the eyes of the middle class, inducting immigrant families into American culture, and creating a science of household management--the task of training girls to be efficient, loyal, and satisfied domestic servants. Such an investment in education could be justified, given the findings of Lucy Salmon and others that the average domestic employee could save as much as or more than the city school teacher. Even when a school proclaimed itself a trade school for homemakers, however, as did the public School of Domestic Science and Domestic Art in Rochester, New York in 1909, the fears of the students that they were being trained for domestic service caused it to be reorganized to concentrate upon dressmaking and millinery.[79]

Many girls clearly preferred factory work to domestic service. But there were few other alternatives open "to the girl who has to leave school at an early age with an incomplete education and lack of knowledge of English grammar, spelling and arithmetic"--in the words of some Boston teachers.[80] Nor was factory work everywhere available. Much of the difference in the 1920 rates of female labor-force participation between the large cities (where 31.9% of women residents were gainfully employed) and less urban districts (18.8% employed) is explainable by the relative presence of industry. But in one-industry towns even the high-school graduates who usually shunned the factories had few alternatives. One study of Southern cotton mills concluded that a graduate's chances that he or she would enter mill work were 9 to 1 in the case of boys and 99 to 1 in the case of girls; most mill-town youngsters in the 1920s were, however, leaving school for the mill at age 14.[81]

Like their parents, boys and girls worked at different kinds of jobs and often in different industries. In Patterson, for example, men were found in the iron works and women dominated the textiles. Although women were skilled cigar makers in Slavic countries, in Pittsburgh's cigar factories these same women were relegated to the lowest jobs.[82] Unskilled boys and girls were to be found both in the most menial and poorly paid jobs, with minimal opportunity to learn much of economic value. But boys had more varied work opportunities and tended to be less confined; while their sisters worked as runners in the factory, boys could be runners about the city.[83] Even in small towns girls had little freedom. When Cassie Wiggins tried to emulate her brother in door-to-door sales work she was effectively stopped by a woman who gave her a tongue-lashing for her "unladylike conduct in going about as a peddler."[84]

The women workers who attended the Affiliated Summer Schools for Workers in the 1930s did not mention vocational education. Theirs were mainly stories of leaving school early, often voluntarily, of blasted dreams and dead-end jobs.[85] What learning potential existed in a shoe factory, where 150 to 200 seperated operations stood between the worker and the finished product? Educators like Willystine Goodsell lamented "the bleak road which leads from one deadening occupation to another," and discussed how to put zest and meaning, as well as job skills, into the curriculum of part-time schooling for the young factory girls. Society resisted the reality that women worked, and widely believed that the expectation of marriage caused girls "to look upon their employment as a temporary makeshift and therefore [they] are not anxious to learn their trade properly." [See Appendix 2 for a chart showing stated reasons for leaving school.] It was also thought that the fact that many girls left school through dislike of it made them less reachable through night schools or continuation schools. Given the lack of interest reported even among the more intelligent girls in "occupational success in itself," the principal of New York City's East Side Continuation School advocated that each continuation school student under age sixteen take a course in homemaking. Such beliefs undoubtedly retarded the development of continuation and trade schools for girls; in 1910, of the 193 trade schools in operation, 26 were meant for girls.[86]

Nevertheless, females outnumbered males in some reports of night school enrollments in vocational classes; the males concentrated on elementary and secondary classes. Thus, girls and women grew as a percent of St. Louis' evening school enrollments: from 11.9% in 1860-'70 to 41.5% in 1910-'20.[87] Moreover, Mrs. Van Vorst, a society matron who worked beside them in industry, reported considerable ambition among the Perry, New York mill hands. Of these workers, children of immigrant families, she observed:

> A great many of the girls and boys took correspondence courses in stenography, drawing, bookkeeping, illustrating, etc., etc. The purely mechanical work of the mill does not satsify them. They are restless and ambitious.[88]

A Jewish immigrant from Poland spoke for herself about her own expectations of work and education:

> When mother died I thought I would try to learn a trade and then I could go to school at night and learn to speak the English well.
>
> So I went to work in Allen Street [Manhattan] in what they call a sweatshop, making skirts by machine. ....
>
> I am going back to night school again this winter. Plenty of my friends go there. Some of the women of my class are more than forty years of age. Like me, they did not have a chance to learn anything in the old country. It is good to have an education; it makes you feel higher. Ignorant people are all low. People say now that I am clever and fine in conversation. ....
>
> Some of the women blame me very much because I spend so much money on clothes.... Those who blame me are the old-country people who have old-fashioned notions, but the people who have been here a long time know better. ....[89]

School leavers characteristically went to work to add to family income, often working in the same factories as other family members. In some instances their wages were paid to their fathers, following a tradition known in Europe. The employment of children in the Cohoes mill in the 1880s permitted their mothers to remain home, and such practices continued in the 20th century.

Daughters in the French-Canadian community in Manchester, New Hampshire contributed nearly all their earnings to their families, and their mothers and younger siblings were gradually withdrawn from the factories as a consequence. In Scranton in the 1920s, child labor provided 35% of Polish family income and records were falsified so that underage children could work in industry. Notably among Italians sons might go to work so that their sisters as well as their mothers could stay at home.[90] The pattern among Buffalo's Italian families was to withdraw sons and daughters from school in about the same proportions; among those aged 15-19, 79% of the sons and 82% of the daughters were not in school. Sons went to work and daughters to help out at home.[91] Given their continued high fertility, economic necessity demanded that New York City's Italian community ensure its children's contributions to family economy: "With so many children...consumers had to be turned into wage earners as soon as possible, [and] long term education became even less feasible."[92] The pattern of female grade-school leavers headed not for work but to help at home was not peculiar to recent immigrants. A study of early school leavers in Bloomington, Indiana during the second decade of the 20th century found most boys working as common laborers or looking for work; over 43% of the girls, however, were not employed, except at home.[93]

Lesser employment opportunities for girls was a factor. Another was the presence of work at home that did not tax the skills of the early school leaver. In addition to the ordinary household duties, girls could contribute indirectly to family income by assisting with the lodgers and boarders who were important economic contributors to many households.[94] Moreover, in largely-uncounted numbers, especially in immigrant neighborhoods, girls and women took in laundry, or made lace, jewelry, artificial flowers, cigars, or did finish work for the garment industry. It was reported that many within a 30-mile radius of Troy, New York worked at home for its collar and cuff industry.[95] Daughters thus assisted their mothers who could stay at home and tend the flat and the babies, protected from the discrimination in the labor market which might come from the handicaps of language and "foreign ways."

The existence of homework also contributed to frequent absence from school, especially among those children under age 14 not legally permitted to work. When New York City's immigrant Jewish population began to prosper, after 1900, and garment workers and cigar makers had stronger unions, women's participation in homework dropped sharply. School attendance became more regular and prolonged, and Jewish girls began to appear among the city's high-school population in startling numbers.[96] Among Italians of a later generation, New Deal efforts to regulate homework helped to promote school attendance and the girl or boy with some high school education became more common--equipped to compete for society's "clean jobs."

The High School Girl On January 24, 1898, at Claude Bover's graduation from Indianapolis High School, the platform held five boy- and nine girl-graduates--a ratio typical of the nation's high schools. Class honors went to three, all girls. "Like most honor people, they are more than ordinarily commonplace--mere drudges," Bowers noted sourly in his diary.[97] Male high-school graduates being rather the exception among young men of the day, rather exceptional careers might be predicted of this group. They did not disappoint, producing a rabbi, a physician, a businessman, a diplomat. (The occupation of the fifth is unknown.) For their part the girls took notable advantage of the proliferating opportunities for women to pursue higher education, to prepare to inhabit "that strange new world that is arising alike upon the man and the woman, where nothing is as it was, and all things are assuming new shapes and relations."[98] Two attended

Vassar College, one the new University of Chicago, another Butler University, another Indianapolis Normal School. Except, however, for the journalist-poet and the dealer in fine arts (both daughters of clergymen and both also marrying), from this group of Indianapolis women there emerged only those few careers which came to typify women high-school and college graduates: three housewives, two teachers, and two secretaries.

Between World War I and the onset of the Great Depression, the percent of mid-adolescents (ages 14-17) found in high schools rose from 62% to 73%. While under one in five seventeen-year olds was a high school graduate in 1920, the figures were nearly one in three in 1930 and one in two in 1940. The career success of those like Claude Bower's male classmates might furnish a reason for boys to stay in school. But what of the girls who continued to predominate in high-school enrollments, although by decreasing margins? Why did they persist in high school, when, if not found in full-time housework, their distribution in the work force showed them concentrated in a very few "women's fields"--operating as "social housekeepers and assistant professionals," in the roles of librarian, nurse, social worker, teacher, and office worker?[99]

It was probably not because of a change in expectations about the relationship between work and marriage in the woman's life cycle. In 1940 eleventh-grade girls in nine Brooklyn high schools reported their occupational choices for the near future and ten years hence.[100] Their most popular immediate choices were secretarial work, women's wear jobs (dressmaking, millinery, etc.), and teaching. Of their plans ten years hence, however, the largest group said "housewife"--this despite the everyday evidence of male unemployment during the Depression and the slow rise in the employment rates of married women.[101] In 1900 the highest female work rates had occurred among young single women; in 1940 the pattern remained remarkably similar, except that the youngest girls were kept out of the labor market by prolonging school attendance into and through the high-school years.

When Van Denburg studied New York City high school students around 1910 he contrasted their drudgery and continued dependence with the more attractive and freed lives led by their employed friends; a great grievance of the former was the lack of one's own money. He concluded that

> In every way the work of the high school pupil seems hard, uninviting and entirely out of keeping with what appear to be the realities of life. The contrast between the abstractions of algebra and the life of the neighborhood is too great to be bridged, save by an arch of faith which few indeed can construct.[102]

Yet, the "realities" of life do help to explain why many parents sent their sometimes unwilling daughters through high school. Adolescent girls had fewer household duties than they had in the nineteenth century when Boston school officials specified that they be given no out-of-school lessons.[103] It was remarked in 1914 that "probably one third of the kitchen work has gone, or, for households that patronize bakeries, perhaps one half;" before 1920 the majority of American families used bakeries and store-bought clothing.[104] Smaller families and widespread schooling reduced child care and permitted many girls to confine their domestic assistance to after-school hours. Smaller families are also thought to have promoted greater psychic and economic "investment" in children, including extended schooling.[105]

While many high-school girls expressed themselves as undecided about a future occupation, often because they hoped or expected to marry, their behavior indicated their or their parents' cognizance of others of life's realities. One was the diminished demand for unskilled labor, in an economy where women's share of factory employment was declining and machines were doing what beginners used to do. [See Appendix 3 and 4 on changes in how youth were employed.] Along with working after school and before marriage, if only for "pin money," there was also the knowledge that occupational skills and work experience were a form of insurance against life's uncertainties. During the century after the Centennial of the Republic, there was ample evidence that a women might have to support herself and others; while premature widowhood was growing less prevalent, therewere prolonged economic depressions during the 1890s and 1930s, involvement in five foreign wars, and rising divorce rates.[106] Surely many parents felt an intense obligation to give their daughters some training for employment.

A high school education did that, for girls more than for boys given the structures of the different labor markets for men and women. The academic or general course equipped girls to be teachers, office workers, and sales clerks--with little or no additional or expensive study required. Girls learned how to speak, behave, and dress properly, to meet strangers, and take directions--without the necessity of vocational courses or commercial tracks. If high schools offered no classes in typing, shorthand, or bookkeeping, many communities had brief courses in night schools, proliferating secretarial schools, and "business colleges." In Chicago in 1910, 32% of all high school students elected a commercial subject and forty business schools enrolled 19,000 students; indeed a common reason given for leaving high school before graduation was "to go to business college." In Cleveland, the public schools' enrollment in commercial courses was one-tenth that found in such courses in the private, parochial, and philanthropic sector.[107]

When Mary Grant asked to help her father in his rural Ohio bank during the Civil War, she found him "not willing." Yet, "so many have enlisted here that it is difficult to obtain hands in all employments," she explained, and "The ladies will have to turn in yet and I want to learn book keeping on that account."[108] The Civil War opened a few government jobs to women in Washington but men were still 97.5% of the clerical labor force in 1870. Clerkships had been apprenticeships to business careers and men still outnumbered women, as students and faculty, in commerical and business schools in 1906. Especially before World War I discussions of public school commercial courses typically mentioned their appropriateness for both boys and girls--unlike the industrial arts and domestic science courses.

Nevetheless, with the growing need for clerks in proliferating businesses and expanding corporations, the women "typewriter" began to appear in many stores and offices. So much did they come to be associated with the office machine that two teachers at the Technical High School in Newton, Massachusetts wrote in 1913:

> Every women and girl in this twentieth century should congratulate herself on the numerous means open to her for self-support and, if need for, for helping to fill the family exchequer,--means which are not only remunerative... but which are pleasant, respectable, and capable of widening the outlook of the worker. The inventor of the typewriter ought to be an honorary member of every woman's club in the land, for, to how many women has it furnished the means of independence.[109]

Stores and office employment grew faster than the female labor force, and by 1920 the Census listed stenographers and typists in third place and saleswomen and clerks in fourth place among all white, native born women in the workforce. [See Appendix 5.] The percentage of women among federal civil service employees grew more slowly, from 16% in 1923 to 23% in 1950, and most female federal white-collar workers were clerical employees. The telephone companies hired the first women telephone operators in 1878; there were 200,000 in 1925. They preferred girls with high school experience and would not hire those below age 17; a study of Boston's operators in 1912 found 87% had been to high school.[110]

Sometimes disparaged as "Washing and Ironing School," New York City's Washington Irving High School was a model comprehensive high school, preparing its 6,000 female students for college, as bookbinders, library assistants, dressmakers, and buyers. But, the most popular offering among these girls, largely from poor immigrant families, was the commercial course. By 1930, in New York City, clerical jobs commanded 30% of the female labor force. Working class daughters found the hours and pay better, the work more secure, the workplace cleaner.[111] The City's Jewish girls took advantage of the existence of many small Jewish businesses that needed a clerk, bookkeeper, or general office girl. In smaller communities, of course, there were fewer clerical, or other, jobs to use the training offered by the high school.[112]

Even in large Northern cities, black women were rarely found in clerical work; about 1% of their non-agricultural employment in 1920 was in clerical and sales jobs. Black women were found in teaching, however,--the other large employer of the high-school educated. Teaching ranked seventh in the distribution of all black women workers in 1920, although that figure represented only 30,000 women in a black labor force of 1.5 million women. Many Southern school boards capitulated to pressure to hire black teachers for black schools.[113] Enrollment of black girls in the St. Louis schools was enhanced by reversal of a policy against hiring them to teach in the city's black schools, and black girls consequently outnumbered black boys in the high schools.[114] A New York City survey published in 1911 reported that "The colored girl with intellectual ability, particularly if she comes of an old New York family, is apt to turn to teaching.[115]

At a time when schooling advanced relatively few immigrant males from the working to the middle class, the daughters and granddaughters of the foreign born were upwardly mobil through teaching. Norwegian immigrant women were teaching in Iowa in the 1860s, and probably earlier.[116] Girls dominated the Catholic high schools of Boston, and many Irish Catholic girls became teachers of the city's public schools. In his survey of The Social Composition of the Teaching Population, Lotus Coffman observed that, for 1900, "old stock" Americans comprised 63.5% of all women teachers, and the native-born daughters of foreign parentage were 27%; this meant that the latter group contributed a disproportionately large part of the nation's teachers.[117] Despite Coffman's worry about this foreign influence, it can be argued that these "subversive" teachers were better equipped to Americanize the children of the foreign born. In any event, by 1920 the Census reported that teaching ranked fifth among the occupations entered by women of foreign or mixed parentage, employing 7.5% (over 153,000) of all such women.

One such teacher was Henrietta Szold, daughter of a Baltimore rabbi. After graduation from Western Female High School in 1887 she promptly returned (at age 17) as a teacher, later principal, and then teacher of a private school before turning to Zionist causes.[118] While an exceptional woman in most respects, Szold was not alone in finding little standing between a high school education and a teaching post. When Ruth Hill graduated from the Beloit (Kansas) High School in 1896, most of her small class hunted teaching vacancies after a few weeks' summer "normal" to prepare for the teachers' examinations.[119] Indiana was the first state to require, in 1907, that all licensed teachers be high-school graduates. Normal courses appeared in some high schools, like the Girls High Schools in Boston and San Francisco. Chicago's first public high school established a normal department, restricted entry to girls, and gave them preference when hiring teachers for the city schools.[120] Normal schools attached to the public school system, as in St. Louis, further "eased entry."[121] When Garlin Hill wrote to her sister, a former teacher, of her plans to enroll at the State Agricultural College at Corvallis--many "ag' schools" turned out more teachers and preachers than farmers--she was candid: "I do not care to go there but perhaps I had better make a teacher of myself. What else can I make of myself? It costs lots of money to make anything else of one's self."[122]

Some state normal schools were hardly more than substitutes for high schools. Pennsylvania had the largest number. Early in this century it was found that 44% of its normal school students had no work above the common schools; only 12% had completed a full, four-year high school course. The agent sent out by these schools, according to one critic, "discovered that his strongest appeal to the parents is to show them that a son or daughter can save a year's time in obtaining a permanent teacher's certificate by attending."[123]

The New York City High Schools were more demanding institutions than the Pennsylvania normal schools. But they also led smoothly into teaching. Van Denburg found that nearly twice as many high school girls chose teaching as chose all other occupations combined, and that their high-school persistence rate was high. The reasons were clear:

> For teaching, the way is open through free training schools to actual positions attractively paid. No initiative is required, but merely the compliance with certain scholastic standards. .... Until a girl marries she finds in teaching a gentle position with apparently short hours and long vacations. Moreover, most girls are very fond of their teachers and the impulse to emulate them is strong indeed.[124]

This section on the high school girl began by asking why girls should remain in schools when the range of their probable occupations was narrow. Some suggestions of an answer are now at hand. For many parents of the students Van Denburg studied, education was part of "a grand struggle upward," in which their sons, born in poverty, might become merchants and lawyers. From the girls would come teachers able to support their aging parents or assist younger siblings.

For the student's part, however, it must be borne in mind that schooling is more than an academic enterprise; it is a profoundly social experience as well. The story is told of the child once asked why he went to school; surprised at the question, he responded, "Because that's where my friends are!" Student diaries demonstrate conclusively how preoccupied youngsters have been with friendships and rivalries, the development and testing of social skills, the gaining of an identity in a group other than family; the curriculum runs a distant second in competition with this agenda. The ungraded common school of the nineteenth and the high school of the early twentieth century probably did not shelter the intense preoccupation of girls with sociability that James Coleman found in the 1950s, reported in his Adolescent Society.[125] Nonetheless, over the decades the adolescent girl without occupational goals may well have gone to school because "that's where her friends were!"

A strong association exists for women between their years of completed schooling and their participation rates in the labor force. For example, in 1957, more than half of the women with college degrees but less than one-third of eighth-grade graduates were in the work force. The relationship holds also for married women: Participation rates for wives, in 1974, ranged from 32% for those with less than four years of high school to 59% for those with four or more years of college. One explanation is that extended education represents a considerable investment in career, and for the value to be realized the acquired training must be used. Second, there is the fact that persons of more education are concentrated in the better paying occupations where the financial and other rewards of employment are greater. It may also be argued that extended schooling--representing, as it does, greater exposure to the social freight of education--increases the hunger for participation. Also, highly educated women are less likely than the average to live among their families of origin and, therefore, have to seek society elsewhere. The young, single women of the 19th century who came into cities, apparently in numbers larger than their brothers, were seeking work--but probably also companionship. There was intolerable isolation on the farm for some women. There can be intolerable isolation in domesticity. Women felt intense deprivation shut away from the "sociability of the workroom" and from the stimulation men received when they left the house to go to town.[126] Work, too, is a place "where one's friends are."

The College Woman Caroline Dall's manifesto was "I ask for woman, then free untrammeled access to all fields of labor." In the opening of colleges and universities to women, many saw its eventual realization. From 1900 to 1910, the numbers of nurses increased by 700% and of women college faculty by 600% and such optimism seem warranted. "The day is past when half of the people in the world are occupied in one vocation and the other half in an interesting variety of occupations," asserted a California home economist; "the modern women may choose from the variety."[127] Yet, as concerns women and their work in crucial ways the college experience has been a mere continuation--perhaps an upgrading--of that of the high school. College-educated housewives were, of course, better equipped by their studies to discover John B. Watson, to form parent cooperative nursery schools, join the League of Women Voters, and appreciate the perfect soubise. Their courses in child development, fine arts, comparative political theory, and body mechanics constituted an ad hoc homemaking curriculum for the middle class woman that was, at least, less self-conscious and confused than the unstandardized domestic science of the high school, hopelessly mired as it was in its rhetoric about woman's "true profession" and woman's "two professions."

"I do not think a lady is educated till she has had some experiences in teaching children," Mary Lyon had told the Mount Holyoke students.[128] The counterparts of the women who had, in the 19th century, qualified for teaching by attendance at a common school or academy began, toward the end of that century, to set off for places like Ann Arbor and Madison, Vassar and Sophie Newcomb. As women moved into colleges in large numbers--they received a third of all bachelors degrees by 1916 and were 47% of all undergraduates by 1920--the job requirements of teaching followed them inside. Secondary-level normal schools were upgraded into teachers colleges, and some private and most public universities quickly established Education departments for the training of prospective elementray-school teachers (females)--often leaving, however, the preparation of high-school teachers (males and females) to the range of other departments. Teaching continued to be the largest field for women in the Department of Labor's category of "professional and technical occupations"--43% of all women professionals in 1973. And at no time between 1870 and 1970 did teaching fall below fifth place on the list of the ten leading occupations of all women workers.[129]

A census in 1918 of nearly 12,000 graduates of nine Eastern colleges who had ever been gainfully employed revealed that 83.5% had been teachers. As Willystine Goodsell explained, "Teaching is, of course, the path of least resistance for those women who desire to utilize as promptly as possible the information that they have acquired in college as a means of gaining a livelihood."[130] Examining questionnaires sent to 1912 graduates of five women's colleges, Mabel Robinson found 54% in the teaching profession--ranging from Vassar's rate of 31% to Mount Holyoke's 74%. Teachers desiring to change employment were also numerous among the applications made to the Intercollegiate Bureau of Occupations. Robinson observed, acidly,

> It is scarcely likely that over half the graduates of five women's colleges have peculiar aptitude for the teaching profession any more than half of the registered alumnae at the intercollegiate bureau have peculiar aptitude for secretarial work, or that half the graduates of any five men's colleges have either aptitude or desire for any one vocation.[131]

Whether or not they were satisfied with teaching, college-educated teachers acted like their common-schooled predecessors, retiring from their classrooms, temporarily or permanently, for domesticity. They were even less likely than earlier women to capture administrative positions in public education.

Office workers also emerged from the colleges, and secretarial work was second only to teaching in Robinson's sample. The relatively easy entry, requiring little beyond typing and stenography courses at a business school, was an inducement. Another factor was "the delusion still cherished in girls' colleges" that to learn some office skills was to escape the traditional fields. Alice Parsons remembered that

> Those of us who were in college in those days heard prodigious rumors about this great new possibility opened up to women. Girls who didn't want to teach were no longer faced with the alternative of going home and twiddling our thumbs. They might, if they studied typing and stenography and were very clever and efficient become the Confidential Secretaries of men who were doing frightfully interesting things. .... No one would have suggested this as a means of launching a boy on any other career than that of typist or stenographer. ...it has little to do with being a good doctor, forester, diatician or sculptor.[132]

There were, to be sure, new careers for women for which preparation came into the colleges--fields which had little or no place in the high school curriculum. Some nursing education moved out of hospital schools and into baccalaureate and even graduate programs. Nurses grew so numerous among women workers as to constitute the second largest group of women professionals. By 1910 three-quarters of library workers were women. Courses in library science developed in a variety of colleges, including the state teachers colleges and their successor institutions. The arguments on behalf of women as the ideal library worker bore an unmistakeable resemblance to that applied earlier to teaching.[133]

The turn-of-the-century women's colleges have been characterized as celebrating "a peculiar blend of intellectual achievement, social service, and genteel feminism" that was put into service in creating the social work profession; social work expressed women's "continued belief in the nurturant self-sacrificing female temperament." Jane Addams spoke of the necessity of settlement-house work in terms of the "great mother breasts of our common humanity, with its labor and suffering and its homely comforts."[134] By 1920, college-trained case workers and social researchers had come to dominate at least the lower rungs of this new profession. In the new and enlarging bureaucracies of "social housekeeping," college-educated social workers and high-school educated clerks found new labor.

Women who themselves stepped outside of woman's "true profession"--women like Catharine Beecher, Sarah Josepha Hale, Jane Addams, Ellen Richards--helped to create a few large fields of work for women with advanced education without challenging gender stereotypes or redefining her sphere. Woman's natural instruction of children in the family circle proved her superiority as a teacher of the new public schools. Woman's traditional almsgiving function demonstrated the humanitarian selflessness needed on boards of associated charities and relief agencies. The nursing profession was born of woman's "love of ministering to those in need," her observant nature and "gentle touch."[135]

In an institution that had been reshaped to "certify merit, competence, discipline, and control"--in individuals and in fields of enterprise--it was important, however, that training for women's professions also be scientific, efficient, and expert. A scientifically-oriented home economics, which had scant success in the high schools as preparation for employment, became established in universities, especially in the land-grant institutions. Graduates did indeed, find varied careers -- as extension agents, dieticians, in scientific research, product development and testing, as managers of large institutions, and as professors in universities which otherwise employed few women faculty.

An advantage claimed for the field of home economics as an occupation for women was that "the name itself prevents any possibility of considering the field unsuitable for women and usually eliminates any competition with men."[136] It also encouraged university officials to make of home economics -- and other clearly women's fields -- the equivalent of an isolated "ladies college" within a university. Cornell founded a department of home economics in 1900, restricted admission to women, reserved the law and engineering schools to men, and limited female enrollments in other professional schools. Professorships for women were confined to home economics until 1947, when a woman was named as assistant professor in the college that educated the most women: Arts and Sciences. Women interested in economics or chemistry were directed into home economics and food chemistry.[137]

The segregation which many women experienced in their studies rested, in part, on institutional devices: quotas, restrictions on scholarships, the unavailability of internships for women medical students. Individual women also made choices which reduced their options. As a high school student in 1901, Florence Peck made a decision about education that helped to shape the nature of the decisions which she could make subsequently. In her diary she explained;

> Tried chemistry. And flunked. It is the horridist of hateful things to flunk. I will I shall 'drop' it. Florence says I wont need it for the U[niversity] of

> [R]ochester and that is where I shall go on account of the "lonesome dollars" in the E.C. Peck family.[138]

Other women were making similar decisions against the opportunity for careers in science. When St. Louis added several new courses in its high schools between 1900 and 1920, the percentage of girls electing the "Scientific Course" declined from 38% (over half the boys' figure) to 2.9% (14% of the boys' figure); the percentage of all girls who enrolled in the "General Course" grew from 35% in 1910 to 62% in 1920. Surveys of high school physics and chemistry enrollments in the late Twenties found boys outnumbering girls three to two, with girls slightly more numerous in biology and botany courses.[139]

The fact that girls did not fail in school as often as did the boys undoubtedly offered them less discouragement. But the pronounced tendency to withhold from girls the chance to skip a grade probably did not stimulate the extraordinary achievement orientation that might have sent more girls into demanding fields. Writing of the reluctance of schools and families to let girls try the extra work -- despite evidence that when they were advanced they succeeded as well as did the boys -- Charles Keyes explained

> The larger number of boys among the ground-gainers is in part due to a hesitancy on the part of teachers and parents to let the girls undertake the extra work necessary to gain a grade, in part to the more ready acceptance of the conventional schedule by girls, and for girls by their parents. On the other hand, the larger number of boys looking ahead to business careers or to college and professional life, were stimulated to save time.[140]

Only a few days before her graduation from Girls High in San Francisco, two of Harriet Levy's girl friends announced their decision to go to the University and sought her company. She recalled:

> I had never considered a university education, as girls whom I knew had not gone to college. The proposal coming suddenly associated itself with no image. I knew nothing of qualifications for admission, or of entrance examinations. I had not even seen the University of California, nor been

> to Berkeley. .... I told Father. .... He would ask the advice of Nathan Sachs, the wholesale dry-goods merchant. Mr. Sachs told Father that education was fine for a boy, but would spoil the chances of a girl. Men did not like smart wives. .... We decided to take the chance.[141]

Harriet Levy entered the University with her father's sober advice about crossing the Bay alone and about "the disadvantages of intermarriage" -- but without purpose.

For both sexes the decision about a field, even the decision to continue schooling, could be quixotic: a response to the choices and experiences of friends, to accidental encounters, to flights of fancy. The decisions of women were easier to make in the sense that but few fields of study and vocational preparation appeared feasible -- despite the unquestionably true assertion that women were to be found in virtually all occupations. Accordingly, sharp differences were observed between the sexes in the studies they pursued. Besides education, nursing, home economics, and librarianship -- in which fields women took at least two-thirds of the degrees, -- they were the majority in English, journalism, fine and applied arts. Men, meanwhile, earned 90% or more of the degrees in engineering, business, agriculture, law, medicine, pharmacy, and the physical sciences. The greater tendency of women to attend teachers colleges and liberal arts colleges, while men predominated at technical colleges and universities, was another manifestation of the existence of separate labor markets for men and women.

Every census from 1900 to the present shows female workers to be concentrated in occupations where most of their fellow workers (frequently 70-80%) were women. Although the two world wars of the 20th century, like the Civil War, opened employment in more varied work, such gains were either not permanent or the new field that benefitted -- like teaching and nursing -- relentlessly became women's work. Morecever, professional workers did not benefit as much as did craft and industrial workers during World War II. Neither were the employment gains of wartime periods necessarily permanent. After the Armistice Elizabeth Adams had cautioned that

> It is no time for easy optimism nor for relaxed effort. There is considerable reaction from the professional hospitalities extended during the war; and women who worked shoulder to shoulder with men are discovering that the masculine shoulder may be coldly turned.[142]

Over two million women workers were laid off following the end of the next war. Women were under 3% of the 2.3 million veterans who attended college on the "G.I. Bill."[143] The federal policy of education benefits to veterans intensified a quarter-century decline of women as a percentage of college students; in 1950, at 31%, they reached a low not seen since 1880. These women who did attend college and enter the labor market concentrated, more than before, in preparing to teach those children whose birth testified to the renewed strength of the domestic imperative. Middle-class women began having children at the same rate as the poor and marrying earlier, further reducing their participation in higher education.

Conclusion

Sexism is too unidirectional and crude a concept to employ when groping toward an understanding of how men and women experience differently the pleasures and punishments meted out by the major social institutions of family, education, and work. Discriminatory treatment there has been. Males experience it when singled out far more frequently for discipline, for identification as "retarded" or "emotionally disturbed," for placement in "ungraded classes" and custodial institutions.[144] To a point females have been more successful and better rewarded in schools. That point was reached where education was clearly articulated with work in non-female fields. There women students faced doubts, rebuff, even hostility -- from teachers and administrators, other students, dispensers of scholarships and internships, from potential employers, union officials, male workers, government, even their families.

Like women themselves, well-meaning educators found it hard to cope with changes in their labor force participation, given the fact that the reigning ideal remained that of the contented, full-time homemaker. In the earlier period discussions of female education seldom mentioned occupational objectives, except the preparation of teachers -- who were seen more clearly as moral stewards than as working women. "I would confidently assert, as biological fact, the males are the race; the females are merely the sex told off to recruit and reproduce it," Grant Allen flatly informed late-19th century Americans. "All that is distinctively human is men -- the field, the ship, the mine, the workshop; all that is truly woman is merely reproductive -- the home, the nursery, the schoolroom."[145] Not surprisingly, advocates of female education and their opponents alike focused upon issues of morality, health, and fertility -- not work.

Even in the age when vocational education became accepted as an explicit function of schooling, discussions of employment-oriented programs seldom mentioned females. For one thing, vocational curricula were intended to keep boys longer as students while girls were already over-represented in school. Without notable enthusiasm from the nation's mothers and daughters, home economics proliferated without much challenge -- because it posed no threat to old assumptions. As a federal publication stated in 1918, home economics

> finds its place in the school curricula because it furnishes vocational education in that occupation in which 93% of all American women ultimately engage and because it gives prevocational training to the industries in which the majority of all women wage earners enter. .... pursuits evolved from employment formerly carried on within the home."[146]

Below the university level, job training and "content related to vocations" did not intrude, despite considerable evidence that girls, too, were concerned about remunerative employment and occupational preparation. Except for the occasional provision of units on budgeting, grooming, and time management for working girls -- "Home economics may not help one in earning but it helps you spend your earnings to get something good and worthwhile" -- home economics courses emphasized household management, domestic cooking and sewing, family relationships, home nursing, and child care.[147]

Commercial courses might be accounted the most successful response of schools to the fact of women's employment. As early as 1920 in the Eastern states half or more of girls entering the high school elected some business subjects seeking preparation for office work, which became the largest source of employment of female high-school graduates. Still, in the first Depression year, Office of Education statistics showed under one in five girls enrolled in commercial courses. Three decades later, while enrollments in shorthand were 7% of all secondary-school enrollments, general-education objectives and the college-bound boosted enrollments in typing classes to over half of all ninth graders.[148] Business, then, was relying most on the pre-vocational general curriculum -- and upon the enduring cultural expectations that socialized women for "women's work."

As an explanation of the sex-segmented work force or the "collapse" of careerism among college-educated women by the 1920s,[149] it would be tempting but myopic to put too much stock in curricular differentiation by gender. The sometimes-obligatory course in home economics -- whose "controlling purpose" was to prepare females "for useful employment as house daughters and homemakers"[150] -- no more shaped female participation in the labor force than the sometimes-obligatory course in industrial arts or drafting shaped male careers.

Illiberal and ungenerous as it was, the refusal to admit girls to many shop or vocational agriculture classes was symptomatic of society's attitudes, not a cause of women's exclusion from male occupations.

Sex-specific instruction developed only to a modest degree in the lower schools. The emergence of new women's professional curricula in the universities — social work, librarianship, nursing, home economics — was dwarfed by the selection, by women, of majors in English, psychology, the arts, modern foreign languages — fields which led far more women into housewifery, the public or private school classroom, and the business office. It was, then, the academic curriculum that equipped them with the minimal job skills and socialization to work that they needed to enter the labor force.

By being unspecialized and inexpensive, the academic curriculum was "practical" -- given the near-universal expectation of women's short lives as paid workers. Being cheap education it did not pay off handsomely, as economists reckon these things. Male-female wage differentials persisted, advancements were restricted, and women remained more vulnerable to unemployment. But it is incorrect to say that schooling had little or no vocational pay-off for women. A new labor economics must consider the rewards of work to women in ways rather different than have traditionally been applied to men.

It is commonplace to read that single women labor to fill in the time between school graduation and marriage, to meet prospective mates, or save for a trousseau. While moralists have scorned the young woman who works for "pin money, luxuries, and good times," social disapproval of the married woman worker has been still more intense.[151] The startling increase in the labor-force participation rates of married women, including those in the 25-34 range, and a pattern of unprecendented persistence among older women workers need some justification. [See Appendix 6]. The most common explanation is that they are employed out of economic necessity: to supplement a husband's inadequate earnings or because they are divorced or separated. This makes their persisting employment more socially palatable by linking female employment to family goals--as the employment of children in the 19th, but not in the 20th century, contributed to family welfare.[152] Might not many women, nonetheless, seek employment out of the same motives of self-enhancement that cause them to find their husbands inadequate, as breadwinners or spouses? It still seems difficult to acknowledge women's rights to employment on the bases or desires for greater independence, the company of other adults, especially other women, self-assertion, new experience, a public life.

Despite educators' seeming to be oblivious to the stronger hold which employment was gaining among women, schooling figured in the process. Education *has* contributed to work incentives, both by its contributions to ego development and to raising the level of "wants" that can be met only by increasing earnings. As the French would say, *L'appetit vient en mangant*--"The Appetite grows with eating." Such a function for education should not be underestimated nor deprecated.

NOTES

1. Caroline Healey Dall (1822-1912), The College, The Market, and the Court: Or On Women's Relation to Education, Labor, and Law (Boston: Lee & Shepard, 1867), p. 208. For Dall's earlier years see Barbara Welter, "The Merchant's Daughter: A Tale from Life," New England Quarterly, 42:1 (March 1969), 3-22.

2. Carrie M. White Diary. Entries for July 18, 1884; May 13, 1884; February 9, 1883, White MSS (University of Washington Library).

3. Alice Beal Parsons, Woman's Dilemma (New York: Thomas Y. Crowell, 1926), p. 108.

4. Daniel T. Rodgers, The Work Ethic in Industrial America, 1850-1920 (Chicago: University of Chicago Press, 1978), pp. 206-207.

5. Reported figures vary somewhat. These are from W. Elliott Brownlee and Mary M. Brownlee (eds.), Women in the American Economy, A Documentary History, 1675 to 1929 (New Haven: Yale University Press, 1976), p. 3; Alice Kessler-Harris, "Women's Wage Work as Myth and History," Labor History, 19 (Spring 1978), p. 289.

6. Mary P. Ryan, Womanhood in America, From Colonial Times to the Present (New York: New Viewpoints, 1975), p. 327.

7. Handbook on Women Workers, 1975 (Washington, D.C.: U.S. Department of Labor, 1975), p. 191.

8. Paul H. Douglas, American Apprenticeship and Industrial Education, (New York: Columbia University Press, 1921), p. 139.

9. Kett observes that "the plowboy with few prospects" might stay around the district school till 18 or 19. Older students in college might be both those who got a late start and those uncertain about an occupational direction. Joseph F. Kett, Rites of Passage: Adolescence in America, 1790

to the Present (New York: Basic Books, 1977), pp. 21, 32-33. For the reliance on the clerkship as the preferred means of acquiring business skills see Lewis E. Atherton, "Mercantile Education in the Ante-Bellum South," Mississippi Valley Historical Review, 39 (March 1953), 623-640.

10. A Home in the Woods: Oliver Johnson's Reminiscences of Early Marion County (Indianapolis: Indiana Historical Society, 1951), p. 184.

11. Kathryn Babb Vossler, "Women and Education in West Virginia, 1810-1909," West Virginia History, 36 (July 1975), p. 278.

12. Sarah D. Stow, History of Mount Holyoke Seminary, South Hadley, Mass. During Its First Half Century, 1837-1887 (South Hadley: The Seminary, 1887), p. 6.

13. Good Behavior: Phelps' Elementary Reader for Public Schools (Brattleboro, Vermont: Cheney & Clapp, 1881, 6th ed.), p. 51. Maris A. Vinovskis and Richard M. Bernard, "Beyond Catharine Beecher: Female Education in the Antebellum Period," Signs, 3:4 (Summer 1978), acknowledge (p. 864) that "in practice it was not always possible to separate the girls from the boys; nevertheless, segregation remained the ideal." My research indicates that segregation did not operate and fails to confirm that it was even the "ideal"--as far as practicing pedagogues were concerned.

14. A useful, if partisan history is Arthur Beverly Mays, The Concept of Vocational Education in the Thinking of the General Educator, 1845 to 1945. Bulletin No. 62, Bureau of Educational Research (Urbana: College of Education, University of Illinois, 1946).

15. In Helen Campbell, Prisoners of Poverty: Women Wage Workers, Their Trades and Their Lives (Boston: Little, Brown, 1900), p. 247.

16. Marvin Lazerson and W. Norton Grubb (eds.), American Education and Vocationalism: A Documentary History, 1870-1970 (New York: Teachers College

Press, 1974), p. 32; Arthur G. Wirth, Education in the Technological Society: The Vocational-Liberal Studies Controversy in the Early Twentieth Century (Scranton: Intext Educational Publishers, 1972).

17. Heidi Hartmann, "Capitalism, Patriarchy, and Job Segregation by Sex," in Martha Blaxall and Barbara Reagan (eds.), Women and the Workplace: The Implications of Occupational Segregation (Chicago: University of Chicago Press, 1976), p. 159; Joan W. Scott and Louise A. Tilly, "Women's Work and the Family in Nineteenth-Century Europe," Comparative Studies in Society and History, 17:1 (January 1975), esp. 44-46; Ann Oakley, Woman's Work: The Housewife, Past and Present (New York: Random House, 1974).

18. Peggy Johnson to "Dear Mother," October 10, 1813. Margaret Yundt Kostmayer MSS (Howard Tilton Library, Tulane University).

19. Julia Ellen Rogers, "A Long Look Backward," in Rogers Family Papers (Courtesy of Peggy Thompson Shoenhair, Cupertino, California).

20. "Autobiography of Ruth Dodd Luellen Rogers," p. 174. Ibid.

21. Florence Colby Peck Diary. Entry for April 12, 1901. Peck MSS (Manuscript and Archives Division, New York Public Library).

22. John Ise, Sod and Stubble: The Story of a Kansas Homestead (New York: Wilson-Erickson, 1936).

23. Alan Dawley, Class and Community: The Industrial Revolution in Lynn (Cambridge: Harvard University Press, 1976), p. 29.

24. Indenture of Sarah Carpenter, August 1, 1803. In "Footnotes to Vermont History," Vermont Quarterly, 20:4 (October 1952), 306. Sewing was, of course, an early candidate for inclusion in the public school curriculum. See Marvin Lazerson, Origins of the Urban School: Public Education in Massachusetts, 1870-1915 (Cambridge: Harvard University Press, 1971).

25. Nancy Barnard Batchelder, "Growing Up in Peru (1815-1840)," Vermont

History 11:2 (April 1953), 5.

26. Donald E. Baker (ed.), "The Conine Family Letters, 1849-1851: Employed in Honest Business and Doing the Best We Can," Indiana Magazine of History 69 (December 1973), 341.

27. Kathryn Kish Sklar, The Founding of Mount Holyoke Female Seminary: A Look at Causation and Change in Female Education in Massachusetts, 1776-1837. Unpublished paper presented at Mount Holyoke College and South Hadley Joint Bicentennial Celebrations, February 13, 1976. A shorter version appears in Mary Beth Norton and Carol Berkin (eds.), Women of America (Boston: Houghton-Mifflin, 1979).

28. Rosalyn Baxandall, Linda Gordon, and Susan Reverby (eds.), America's Working Women: A Documentary History--1600 to the Present (New York: Random House-Vintage Books, 1976), p. 38. Ansley J. Coale and Melvin Selnick, New Estimates of Fertility and Population in the United States (Princeton: Princeton University Press, 1963). For an example of the working out of these general trends see Mary P. Ryan, "A Women's Awakening: Evangelical Religion and the Families of Utica, N.Y., 1800-1840," American Quarterly, 30:5 (Winter 1978), 602-623.

29. Sally Rice to Hazelton and Rhoda Rice, 1839. In Nell W. Kull, "I Can Never Be Happy There in Among So Many Mountains--The Letters of Sally Rice," Vermont History, 38:1 (1970), 52.

30. George M. Woytanowitz, "Educating 'Watch City': The Transformation of Education in Waltham, Massachusetts, 1840-1880," Journal of the Midwest History of Education Society, 6 (1978), 19.

31. Sally Rice to Hazelton Rice, February 23, 1845. In Kull, p. 53.

32. Caroline F. Ware, The Early New England Cotton Manufacture: A Study in Industrial Beginnings (Boston: Houghton Mifflin, 1931), pp. 200-203, 291.

33. Sally Rice to Hazelton Rice, February 23, 1845. The unhealthful swamp surrounding the mill drove Sally away in a few months. After another short stay in farm work, Sally married James Alger in 1847 and settled in Worcester, Massachusetts. In Kull. On the short-term employment of early women factory employees see Hannah Josephson, The Golden Threads: New England's Mill Girls and Magnates (New York: Duell, Sloan, and Pearce, 1949); Thomas Dublin, "Women Workers and the Study of Social Mobility," Journal of Interdisciplinary History, 9:4 (Spring 1979), 654-655. The situation did not change greatly with the Scottish women workers studied by Ray Ginger, "Labor in a Massachusetts Cotton Mill, 1853-60," Business History Review, 28 (1954) 67-91.

34. From "My Experience as a Factory Operative." Reproduced in Philip S. Foner (ed.), The Factory Girls (Urbana: University of Illinois Press, 1977), p. 341.

35. Lucy Ann to Cousin Charlotte, June 29, 1851. In Anonymous, "An Independent Voice: A Mill Girl from Vermont Speaks Her Mind," Vermont History, 41:3 (1972), 144.

36. Mary C. Todd to Lucy Chase, December 3, 1837, Chase Family MSS (American Antiquarian Society).

37. Mary to Ellen Bartlett, October 9, 1870, Ellen [Helen L.] Bartlett MSS (Duke University Library).

38. Reprinted in Foner, Factory Girls, p. 336.

39. In Zylpha S. Morton, "Harriet Bishop, Frontier Teacher," Minnesota History, 28 (June 1947), 134, 139 (emphasis added).

40. Richard M. Bernard and Maris A. Vinovskis, "The Female School Teacher in Ante-Bellum Massachusetts," Journal of Social History, 10:3 (Spring 1977), 333.

41. Francis Merritt Quick Diary. Entry for May 14, 1855, Quick MSS (Schlesinger Library, Radcliffe College).

42. Charles A. Harper, Development of the Teachers College in the United States, With Special Reference to the Illinois State Normal University (Bloomington, Ill.: McKnight and McKnight, 1935), pp. 102-103.

43. Caroline Prescott, "Female Education," October 9, 1817. Prescott was a student in the Augusta (Maine) Female Academy at this writing. In Francis Merritt Quick MSS.

44. See the survey of curriculum offerings of female seminaries from 1749-1871, and the comparisons of the earlier (1749-1829) and later (1830-1871), in Thomas Woody, A History of Women's Education in the United States (New York: Science Press, 1929), I, p. 563. The discussion of the role of female seminaries appears exaggerated in interpretation and anachronistic in Keith Melder, "Mask of Oppression: The Female Seminary Movement in the United States," New York History, 55 (July 1974), 261-279. Also, the role of famous academies, like Mount Holyoke, and their many obscure counterparts, appears to have been more important in the education of women for work like teaching and in reaching below the "upper crust" than is suggested in Vinovskis and Bernard, "Beyond Catharine Beecher," 860. Cf. Michael Flusche, "Anti-slavery and Spiritualism: Myrtilla Miner and Her School," New York Historical Society Quarterly, 59 (April 1975), esp. 154-155 on the Clinton Female Seminary; Forest C. Ensign, "The Era of Private Academies," Palimpsest, 27/28 (March 1946), 75-85, on Iowa seminaries and academies; and Timothy L. Smith, "Uncommon Schools: Christian Colleges and Social Idealism in Midwestern America, 1820-1950," in The History of Education in the Middle West: Indiana Historical Society Lectures, 1976-1977 (Indianapolis: Indiana Historical Society, 1978), esp. p. 30.

45. See the interesting brief biographies, some of Mount Holyoke women, in Ethel McMillan, "Women Teachers in Oklahoma, 1820-1860," Chronicles of Oklahoma, 27 (Spring 1949), 2-32.

46. William L. Hiemstra, "Presbyterian Mission Schools Among the Choctaws and Chickasaws, 1845-1861," Chronicles of Oklahoma, 27 (Spring 1949), 36.

47. Both women teachers who lived at home and those that boarded with another family lived overwhelmingly in male-headed households: 60.8% with fathers present and 27.9% in other male-headed families. In Ann Weingarten, "Women Common School Teachers in Michigan, 1836-1860: A Study of Their Economic, Social, and Occupational Characteristics." Senior Honors Thesis, University of Michigan, 1976, p. 87. Michigan Historical Collections (Bentley Historical Library, University of Michigan). While a valuable source of information the interpretations are less useful.

48. Melder incorrectly contends that, after 1830, informal networks were replaced by formal means of communication and certification. Keith Melder, "Woman's High Calling: The Teaching Profession in America, 1830-1860," American Studies, 13:2 (Fall 1972), 26. On the operations of family influence in factory life see Rosabeth M. Kanter, "Families, Family Processes, and Economic Life: Toward Systematic Analysis of Social Historical Research," in John Demos and Sarane Spence Boocock (eds.), Turning Points: Historical and Sociological Essays on the Family (Chicago: University of Chicago Press, 1978), pp. 316-339.

49. Kenneth W. Porter (ed.), "A Little Girl on an Iowa Forty, 1873-1880--Catherine Wiggins Porter," Iowa Journal of History and Politics, 51 (April 1953), 131-155 and "School Days in Coin, Iowa, 1880-1885--Catherine Wiggins Porter," Iowa Journal of History and Politics, 51 (October 1953), 301-328.

50. Millard Fillmore Kennedy, Schoolmaster of Yesterday: A Three-Generation Family (New York: Whittlesey House, 1940). The Applegate Papers are in the University of Oregon Library and the Andrew Funkhouser Papers in the Duke University Library.

51. Joseph W. Snell (ed.), "Roughing It on Her Kansas Claim: The Diary of Abbie Bright, 1870-71," Kansas Historical Quarterly, 37:3 (Autumn 1971), 234.

52. Jabez Brown MSS (State Historical Society of Wisconsin).

53. Robert Jameson Jones (ed.), "An Oakland Girlhood: Lydia Murdoch Jones," Western Pennsylvania Historical Magazine, 57 (1974), 463-473.

54. In John Sutherland MSS (Barker Texas History Center Archives, University of Texas).

55. Mary J. Oates, "Organized Voluntarism: The Catholic Sisters in Massachusetts, 1870-1940," American Quarterly, 30:5 (Winter 1978), 654-655.

56. Johnson, "A Home in the Woods," p. 175.

57. Redding S. Sugg, Jr., Motherteacher: The Feminization of American Education (Charlottesville: University Press of Virginia, 1978); Richard G. Boone, Education in the United States (New York: D. Appleton & Company, 1912), pp. 381-382; U.S. Office of Education, Report of the Commissioner of Education, I (1899-1900), p. LXXII; San Francisco, Board of Education Annual Report (June 1898), p. 66; Los Angeles Board of Education, Annual Report of the Board of Education (1899-1900), pp. 48-50; Report of the United States Commissioner of Education for 1907-1908, for cities of 8,000 population and over, reported in Marion Talbot, The Education of Women (Chicago: University of Chicago Press, 1910), p. 23.

58. In Jacob A. Swisher, "Iowa Schools in 1846," The Palimpsest, 27:3 (March 1946), 66.

59. Travel Reports, c. 1913, p. 4, Amanda Stoltzfus MSS (Barker Texas History Center Archives, University of Texas).

60. In 1890, during those 8-10 years before marriage, 2.5 million of the 6 million single women over age 15 worked for pay; another quarter million under 15 were employed. These figures do not include the unenumerated women working in home industrial production. Robert Smuts, Women and Work in America (New York: Columbia University Press, 1959; Schocken Books, 1971), pp. 23-24.

61. Albert H. Leake, The Vocational Education of Girls and Women (New York: Macmillan, 1918), p. 152.

62. Elson is quoted in Talbot, Education of Women, p. 154. See also James F. Barker, "The Separate Technical High School," in Chester Parker (ed.), Industrial Education: Typical Experiments Described and Interpreted, Eleventh Yearbook of the National Society for the Study of Education, Part I (Chicago: University of Chicago Press, 1912), pp. 56-57. The Cleveland Technical High School also offered vocational education to those already at work who wished to acquire skills. That it approached a comprehensive high school may be inferred from the fact that it promised those wishing further schooling "the opportunity to prepare for entrance to technical schools of college rank" (p. 57).

63. A detailed survey of curricular differentiation prior to the Smith-Hughes Act is John Elbert Stout, The Development of High-School Curricula in the North Central States from 1860 to 1918 (Chicago: University of Chicago Press, 1921). Stout was optimistic that adjustments and reorganization, which were most evident in the years 1910-1918, gave "abundant evidence" that this movement would continue (p. 259). Cf. Mays, The Concept of Vocational Education.

64. Charles A. Prosser, A Study of the Boston Mechanic Arts High School: Being a Report to the Bston School Committee. Teachers College, Columbia

University Contributions to Education No. 74 (New York: Teachers College, Columbia University, 1915), esp. pp. 8, 69.

65. Edward L. Thorndike, "A Neglected Aspect of the American High School," Educational Review, 33 (March 1907), 245-255. There were 7,174 high schools reported in existence in 1904; the largest number (2,175) were one-teacher schools. It was common to find a high-school nothing more than a year or more tacked onto a rural eight-grade elementary school.

66. T.S. Rosen, "Curriculum Opportunities in the Small Six-Year High School," School Review, 41 (February 1933), 123-128; F.T. Spaulding, "Can the Small High School Improve Its Curriculum?" School Review, 39 (June 1931), 423-438.

67. Her community's K-12 system, enrolling under 600 students, represented only 13.8% of U.S. school systems in 1970 and enrolled but 2.3% of the nation's public school students. In Alan Peshkin, Growing Up American: Schooling and the Survival of Community (Chicago: University of Chicago Press, 1978), p. 3, 200.

68. Yoshi Kasuya, A Comparative Study of the Secondary Education of Girls in England, Germany, and the United States, With a Consideration of the Secondary Education of Girls in Japan. Teachers College Contributions to Education No. 566 (New York: Teachers College, 1933), pp. 131, 134.

69. Franklin J. Keller and Morris S. Viteles, Vocational Guidance Throughout the World, A Comparative Survey (New York: W.W. Norton & Co., 1937).

70. Dorothy Canfield Fisher, Our Young Folks (New York: Harcourt, Brace, 1943), p. 69; Sister M. Teresa Gertrude Murray, Vocational Guidance in Catholic Secondary Schools: A Study of Development and Present Status. Teachers College, Columbia University Contributions to Education No. 754 (New York: Teachers College, 1938), pp. 121-122.

71. Selwyn K. Troen, The Public and the Schools: Shaping the St. Louis System, 1838-1920 (Columbia: University of Missouri Press, 1975), p. 192.

72. Herbert A. Toops, Trade Tests in Education. Teachers College, Columbia University Contributions to Education No. 115 (New York: Teachers College, 1921), pp. 76-79.

73. E.W. Weaver, Vocations for Girls (New York: A.S. Barnes Co., 1913), p. 8.

74. Howard M. Bell, Youth Tell Their Story: A Study of the Conditions and Attitudes of Young People in Maryland between the Ages of 16 and 24 (Washington, D.C.: American Council on Education, 1938), pp. 72-79.

75. Emma H. Minesinger (1866-?), "Montana Memories," Typescript in Ida S. Patterson MSS (University of Montana Library).

76. Joseph A. Hill, Women in Gainful Occupations, 1870 to 1920. Census Monographs IX (Washington, D.C.: U.S. Government Printing Office, 1929), p. 109. For a comparison of black male and female occupations in one city see John W. Blassingame, "Before the Ghetto: The Making of the Black Community in Savannah, Georgia, 1865-1880," Journal of Social History, 6 (Summer 1973), 466-467. Useful contrasts between white and black women in the labor force, in the context of the sociology of the family, appear in Bonnie Thornton Dill, "The Dilectics of Black Womanhood," Signs, 4:3 (Spring 1979), 548-550.

77. In John Burnett (ed.), The Annals of Labour: Autobiographies of British Working Class People, 1820-1920 (Bloomington: Indiana University Press, 1947), p. 235.

78. Katherine Anthony, Mothers Who Must Earn. Russell Sage Foundation: West Side Studies (New York: Survey Associates, 1914), pp. 60-61. The rejection of domestic work by girls of immigrant parentage led the proportion of native white girls in domestic work to approach 50% in 1900. See, also,

Mary Trueblood, "Housework vs. Shop and Factories" (1902), in Baxandal, Gordon and Reverby, America's Working Woman, pp. 156-159; Lucy Maynard Salmon, Domestic Service (New York: Macmillan, 1901); Susan M. Strasser, "Mistress and Maid, Employer and Employee: Domestic Service Reform in the United States, 1897-1920," Marxist Perspectives, 1:4 (Winter 1978), 52-67. For the difference between groups in their patterns of employment see Laurence A. Glasco, "The Life Cycles and Household Structure of American Ethnic Groups: Irish Germans, and Native-born Whites in Buffalo, New York, 1855," Journal of Urban History, 1:3 (May 1975), 339-364; Virginia Yans-McLaughlin, Family and Community: Italian Immigrants in Buffalo, 1880-1930 (Ithaca: Cornell University Press, 1977), esp. pp. 203-210; Maxine S. Seller, "Beyond the Stereotype: A New Look at The Immigrant Woman, 1880-1924," Journal of Ethnic Studies, 3 (Spring 1975), 59-70.

79. The school was not helped by the practice of transferring to it other schools' "undesirable and dull pupils." In Leake, Vocational Education, p. 178.

80. E.W. Weaver, Vocations for Girls (New York: A.S. Barnes Co., 1913), p. 58.

81. Ralph M. Lyon, The Basis for Constructing Curricular Materials in Adult Education for Carolina Cotton Mill Workers. Teachers College, Columbia University Contributions to Education No. 678 (New York: Teachers College, Columbia University, 1937), pp. 20, 51.

82. Herbert G. Gutman, Work, Culture and Society in Industrializing America (New York: Vintage Books, 1977), p. 240; M. Ryan, Womanhood in America, p. 201. While women averaged about 24% of all manufacturing employees in 1920, they dominated production in only a few industrial fields. See Douglas, American Apprenticeship, pp. 142-162.

83. Anthony, *Mothers Who Must Earn*, p. 52. When St. Louis surveyed its evening school enrollment in 1875, the females enrolled were nearly all employed as servants, laundresses, milliners, sales clerks, nurses, or seamstresses and dressmakers. The boys were employed in about 60 occupations. Troen, *Public and the Schools*, p. 133.

84. Porter, "School Days in Coin, Iowa," 327.

85. Andria Taylor Hourwich and Gladys L. Palmer (eds.), *I Am A Woman Worker: A Scrapbook of Autobiographies* (New York: The Affiliated Schools for Workers, 1936); Eli Ginzberg and Hyman Berman, *The American Worker in the Twentieth Century: A History Through Autobiographies* (New York: Free Press, 1963); Helen M. Todd, "Why Children Work: The Children's Answer," *McClures Magazine*, 40 (April 1913), 68-79. Surveys of studies of school leavers are found in Meyer Bloomfield, *Youth, School, and Vocation* (Boston: Houghton Mifflin, 1915), Chapter II; Meyer Bloomfield (ed.), *Readings in Vocational Guidance* (Boston: Ginn & Co., 1915), pp. 396-453; Will Carson Ryan, Jr., *Vocational Guidance and the Public Schools*, Bureau of Education Bulletin, 1918, No. 24 (Washington, D.C.: U.S. Government Printing Office, 1919).

86. Franklin J. Keller, *Day Schools for Young Workers* (New York: The Century Co., 1924), p. 248; J. Edward Mayman, "The Evolution of the Continuation School in New York City," *School Review*, 41 (March 1933), 193-205. Willystine Goodsell, *The Education of Women: Its Social Background and Its Problems* (New York: Macmillan, 1923), p. 178.

87. Troen, *Public and the Schools*, p. 191; Talbot, *Education of Women*, p. 24.

88. Bessie Van Vorst and Marie Van Vorst, *The Woman Who Toils: Being the Experiences of Two Gentlewomen as Factory Girls* (New York: Doubleday, Page & Co., 1903), p. 91.

89. Ginzberg and Berman, *The American Worker*, pp. 125-126.

90. In southern Italy fathers had received the wages of daughters working in the northern silk mills. In Judith Smith, *City and Family: Italians and Jews in Industrial Rhode Island*. Unpublished paper, presented at the American Historical Association Annual meeting, December 1976, p. 4. On Cohoes, see Daniel J. Walkowitz, *The Alienation of Working Class Women in the Gilded Age: Factory, Community and Family Life Among Cohoes, New York Cotton-Workers*, unpublished paper, pp. 7, 10. On Manchester, see Tamara K. Hareven, "Family Time and Industrial Time: Family and Work in a Planned Corporation Town, 1900-1924," in Tamara K. Hareven (ed.), *Family and Kin in Urban Communities, 1700-1930* (New York: New Viewpoints, 1977), esp. p. 198. On Scranton, see John Bodnar, "Materialism and Morality: Slavic-American Immigrants and Education, 1890-1940," *Journal of Ethnic Studies*, 3:4 (Winter 1976), 1890-1940. In the 1850s it was estimated that, at some time in the family cycle, children in the Lowell mills contributed up to 75% of family income. Thomas Dublin, "Women, Work, and the Family: Female Operatives in the Lowell Mills, 1830-1860," *Feminist Studies*, 3:1/2 (1975), p. 37.

91. Yans-McLaughlin, *Family and Community*, p. 203.

92. Miriam Cohen, *Changing Education Strategies Among Migrant Generations: New York Italians in Comparative Perspective*. Unpublished paper, presented at the American Historical Association annual meeting, San Francisco, December 1978, p. 10.

93. Henry Lester Smith, *A Survey of a Public School System* [Bloomington, Indiana]. Teachers College, Columbia University Contributions to Education No. 82 (New York: Teachers College, 1917), pp. 88, 108.

94. David Hogan, "Education and the Making of the Chicago Working Class,

1880-1930," History of Education Quarterly, 18:3 (Fall 1978), esp. pp. 238-242; John Modell and Tamara K. Hareven, "Urbanization and the Malleable Household: An Examination of Boarding and Lodging in American Families," in Hareven, Family and Kin, pp. 164-186.

95. Smuts, Women and Work, pp. 15-16. On "out-work" in England before 1850 see Ivy Pinchbeck, Women Workers and the Industrial Revolution, 1750-1850 (New York: Augustus M. Kelley, 1969), pp. 202-239.

96. Cohen, Changing Education Strategies; Selma C. Berrol, Down from the Pedestal: The High School Experience of Women in New York City, 1900-1920. Unpublished paper, presented at the American Educational Research Association annual meeting, San Francisco, April 1979.

97. Holman Hamilton and Gayle Thornbrough (eds.), Indianapolis in the "Gay Nineties": High School Diaries of Claude G. Bowers (Indianapolis: Indiana Historical Society, 1964), p. 115. Claude's mother was a widow who supported herself and only child as a dressmaker; he did not attend college.

98. Olive Schreiner, Woman and Labor (1911), quoted in Rodgers, The Work Ethic, p. 182.

99. M.P. Ryan, Womanhood in America, p. 234. A survey of the occupational opportunities available only to boys in a mining community will help explain girls' two-to-one dominance of the town's high school. In Ivan C. Crawford, "School Days in Leadville," Colorado Magazine, 36 (July 1959), 223-230.

100. Grace Elizabeth Laleger, The Vocational Interests of High School Girls, as Inventoried by the Strong and Mason Blanks. Teachers College, Columbia University Contributions to Education No. 857 (New York: Teachers College, 1942), pp. 39-42.

101. Despite legal and cultural bars against married women in employment, the Depression's economic effects and the presence of so much education in

the female population increased the rate of gainful employment of the married: from 11.7% of the female labor force in 1930 to 15.2% in 1940. In M. P. Ryan, Womanhood in America, p. 315. By 1974, married women accounted for nearly 58% of all women workers. In U.S. Department of Labor, Handbook 1975, p. 3; Valerie Kincade Oppenheimer, The Female Labor Force in the United States: Demographic and Economic Factors Governing Its Growth and Changing Composition. Population Monograph Series No. 5 (Berkeley: Institute of International Studies, University of California, 1970).

102. Joseph King Van Denburg, Causes of the Elimination of Students in Public Secondary Schools of New York City. Teachers College Contributions to Education No. 47 (New York: Teachers College, 1911), p. 185. To the question "Is a high school education necessary for your plans for the future?," the boys answered "yes" more often than did the girls (56% to 41%), and "no" less frequently (27% to 37%) (p. 71).

103. The Boston regulations of 1857-61 stated that boys' assignments during out of school hours should be no longer "than can be acquired in an hour's study by boys of good capacity." In Talbot, Education of Women, p. 71.

104. Elizabeth Woodbridge, "The Unknown Quantity in the Woman Problem," Atlantic Monthly, 113 (April 1914), p. 519.

105. John Moddell, "Suburbanization and Change in the American Family," Journal of Interdisciplinary History, 9:4 (Spring 1979), 630.

106. A teacher in the Elkhart (Indiana) High School during the 1890s attributed rapid increases in high school attendance to the long depression. In William O. Lynch, "I Complete My Normal Training and Go to Elkhart" [Autobiography, Installment 7] Indiana Magazine of History, 33 (1937), 355n.

107. Leake, Vocational Education, pp. 336, 341, 347.

108. Mary Grant to Elizabeth L. Grant, [grandmother], September 14, 1862, Grant Family MSS (Sophia Smith Collection, Smith College Library).

109. Mary A. Laselle and Katherine E. Wiley, Vocations for Girls (Boston: Houghton Mifflin Co., 1913), p. 79. Also see Marjery Davies, "Woman's Place is at the Typewriter: The Feminization of the Clerical Labor Force," Radical America, 8:4 (July-August 1974), 1-28.

110. Goodsell, Education of Women, p. 184; Baxandall, Gordon, and Reverby, America's Working Women, pp. 236, 407. Telephone operators appeared only once, on the 1950 Census, in the list of ten leading occupations of women.

111. Berrol, Down from the Pedestal, p. 11; Cohen, Changing Education Strategies, pp. 33-34, 36, 37. The percentage of New York's Italian women employed in clerical occupations was 8% in the first generation and 40% in the second; it was 58% among those born between 1926 and 1936.

112. In 1920, one quarter of all women age sixteen or over were in the labor force. The figure for cities over 100,000 population was 32%, that for smaller cities (under 25,000) and rural areas was 19%: Hill, Women in Gainful Occupations, p. 9.

113. Howard N. Rabinowitz, "Half a Loaf: The Shift from White to Black Teachers in the Negro Schools of the Urban South, 1865-1890," Journal of Southern History, 40 (November 1974), 565-594.

114. Troen, Public and the Schools, pp. 91, 94.

115. Mary White Ovington, "On the Black Woman as Breadwinner." (1911), in Nancy F. Cott (ed.), Roots of Bitterness: Documents of the Social History of American Women (New York: E. P. Dutton, 1972), pp. 343-347.

116. Theodore C. Blegin (ed.), Land of Their Choice: The Immigrants Write Home (Minneapolis: University of Minnesota Press, 1955), pp. 388-418.

117. Lotus Delta Coffman, The Social Composition of the Teaching Population. Teachers College, Columbia University Contributions to Education

No. 41 (New York: Teachers College, 1911), p. 55.

118. Marvin Lowenthal, Henrietta Szold: Life and Letters (New York: Viking Press, 1942).

119. Ruth Hill to Kate I. Hansen, June 7, 1896; June ?, 1896; July 12, 1896; July 26, 1896, Hansen-Bales Family MSS (Spencer Research Library, University of Kansas).

120. Kay H. Kamin, The Woman Peril in American Public Schools: How Perilous? Unpublished paper presented at the Berkshire Conference on the History of Women, Bryn Mawr College, June 1976.

121. "Eased entry" includes provision of accessible, low-cost institutions, of non-elitist character. It can be viewed as partial compensation for those entering the rather poorly-paying or lower-status semi-professions. In Dan C. Lortie, Schoolteacher: A Sociological Study (Chicago: University of Chicago Press, 1975).

122. Garlin Hill to Nell Hill Denlinger, September 4, 1897, Hill Family MSS (Special Collections, University of Oregon Library).

123. Ernest O. Holland, The Pennsylvania State Normal Schools and Public School System. Teachers College, Columbia University Contributions to Education No. 55 (New York: Teachers College, 1912), p. 56.

124. Van Denburg, Causes of the Elimination of Students, p. 56.

125. James S. Coleman, The Adolescent Society (New York: Free Press, 1961).

126. Kett, Rites of Passage, pp. 95-96; Parsons, Woman's Dilemma, pp. 274-275.

127. Laura V. Clark, A Study of Occupations, Other than Homemaking, Open to Women Trained in Home Economics. Homemaking Education Series, No. 1, Leaflet No. 5 (Berkeley: Division of Vocational Education of the University of California and the State Board of Education, April 1927), p. 4.

128. Stow, History of Mount Holyoke Seminary, p. 127.

129. The proportions of women in the occupations labeled professions declined from 1930 (15%) to 1960 (11%)--as the percentage and sometimes even the numbers of professionals other than teachers slipped steadily. In Barbara J. Harris, Beyond Her Sphere: Women and the Professions (Westport, Conn.: Greenwood Press, 1978), p. 156. Black women have come to constitute a greater proportion of black professionals than is the case with white professionals. In Cynthia Fuchs Epstein, "Positive Effects of the Multiple Negative: Explaining the Success of Black Professional Women," American Journal of Sociology, 78:4 (January 1973), 916.

130. Goodsell, Education of Women, pp. 153-154.

131. Mable Louise Robinson, The Curriculum of the Women's College. Bureau of Education Bulletin, 1918, No. 6 (Washington, D.C.: U.S. Government Printing Office, 1918), p. 120.

132. Parsons, Woman's Dilemma, pp. 277-278.

133. Dee Garrison, "The Tender Technicians: The Feminization of Public Librarianship, 1876-1905," in Mary S. Hartman and Lois Banner (eds.), Clio's Consciousness Raised: New Perspectives on the History of Women (New York: Harper & Row, 1974), pp. 158-178; Mary Elizabeth Downey, "Librarianship," in Doris E. Fleischman (ed.), An Outline of Careers for Women: A Practical Guide to Achievement (Garden City, N.Y.: Doubleday, Doran and Co., 1928), p. 285.

134. Harris, Beyond Her Sphere, p. 118; Jane Addams, Twenty Years at Hull House (New York: Macmillan, 1910; Signet, 1961), p. 93. See also Jill Conway, "Women Reformers and American Culture, 1870-1930," Journal of Social History, 5 (Winter 1971-1972), 164-177 and the epilogue to Susan P. Conrad, Perish the Thought: Intellectual Women in Romantic American, 1830-1860 (New York: Oxford University Press, 1976).

135. *Reminiscences of Linda Richards: America's First Trained Nurse* (Boston: Whitcomb & Barrows, 1915), p. 4.

136. O. Latham Hatcher (ed.), *Occupations for Women: A Study Made for the Southern Woman's Educational Alliance* (Atlanta: Southern Woman's Educational Alliance, 1927), p. 329.

137. Cornell went so far as to form separate alumni associations and build a student union in 1925 with a side door for females. But serious discrimination began with an 1884 policy requiring all women students to live in campus dormitories; by limiting the number of "female beds" it was able to justify the admission of few women students. See Charlotte Williams Conable, *Women at Cornell: The Myth of Equal Education* (Ithaca: Cornell University Press, 1977).

138. Florence Peck Diary. Entry for January 23, 1901. She instead prepared herself for the new specialty of kindergarten teacher.

139. Troen, *Public and the Schools*, p. 189; Margery Stewart Gillson, *Developing a High School Chemistry Course Adapted to the Differentiated Needs of Boys and Girls*. Teachers College, Columbia University Contributions to Education No. 709 (New York: Teachers College, 1937), p. 7.

140. Charles Henry Keyes, *Progress Through the Grades of City Schools: A Study of Acceleration and Arrest*. Teachers College, Columbia University Contributions to Education No. 42 (New York: Teachers College, 1911), pp. 12, 57, 59.

141. Harriet Lane Levy, *920 O'Farrell Street* (Garden City, N.Y.: Doubleday & Co., 1947), pp. 123-124, 129.

142. Elizabeth Kemper Adams, *Women Professional Workers* (New York: Macmillan Co., 1921), p. 18.

143. Keith W. Olson, The G.I. Bill, The Veterans, and the Colleges (Lexington: University Press of Kentucky, 1974), p. 103.

144. Commenting on the fact that studies showed larger numbers of males than females in institutions for the feeble-minded, Hollingworth correctly observed that institutional statistics "may be merely an index of the degree to which it is easier for one sex to survive outside of institutions, than it is for the other." In noting that, among the institutionalized, males were the less severely retarded, she linked this fact to society's expectations that women needed less institutional care because many would marry rather than follow competitive careers: "Men...form a highly competitive class, working in rivalry with each other for a wage. The boy who cannot compete becomes an object of concern" and is, more frequently, directed to an institution. "Social and economic pressure bears very unequally upon the sexes in the matter of commitment to institutions for the feeble-minded." In Leta S. Hollingworth, The Psychology of Subnormal Children (New York: Macmillan, 1922), p. 12.

145. Grant Allen, "Women's Place in Nature," Forum, 7 (June 1889), p. 263.

146. Henrietta W. Calvin, "Principles and Policies in Home Economics Education." Home Economics Circular, No. 4 (Washington, D.C.: Bureau of Education, April 1918), pp. 1, 7.

147. Clara Brown Arny, The Effectiveness of the High School Program in Home Economics: A Report of a Five-Year Study in Twenty Minnesota Schools (Minneapolis: University of Minnesota Press, 1952), p. 100.

148. L. J. West, "Business Education," in Robert L. Ebel (ed.), Encyclopedia of Educational Research (New York: Macmillan, 1969).

149. Stricker challenges the historian's tendency to equate the decline of organized feminism with a retreat from the desire for economic independence and enhancement through work. In Frank Stricker, "Cookbooks and Law Books:

The Hidden History of Career Women in Twentieth Century America," Journal of Social History, 10:1 (Fall 1976): 1-19. Cf. Patricia Albjerg Graham, "Expansion and Exclusion: A History of Women in American Higher Education," Signs, 3:4 (Summer 1978), 759-773 and Roberta Frankfort, Collegiate Women: Domesticity and Career in Turn-of-the-Century America (New York: New York University Press, 1977).

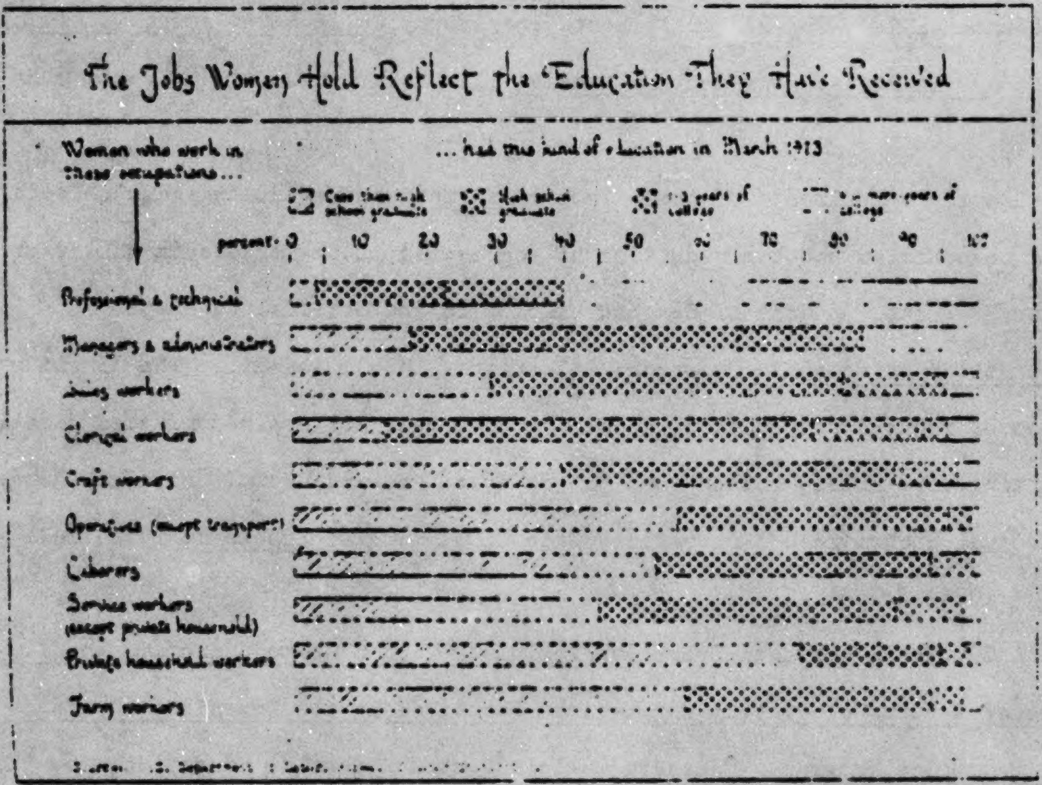
Growing enrollments of women in professional and graduate schools leads Fuchs to optimism about a reduction of segregated labor markets in the future: Victor R. Fuchs, "A Note of Sex Segregation in Professional Occupations," Explorations in Economic Research, 2:1 (Winter 1975), 105-111. The likelier source of reduced segregation, according to Gross, is female-dominated careers admitting more males, rather than the reverse: Edward Gross, "Plus ça Change...? The Sexual Structure of Occupations Over Time," Social Problems, 16:2 (Fall 1968), 198-208.

150. Annie Robinson Dyer, The Administration of Home Economics in City Schools: A Study of Present and Desired Practices in the Organization of the Home Economics Program. Teachers College Contributions to Education, No. 318 (New York: Teachers College, 1928), p. 62.

151. Bell, Youth Tell Their Story, pp. 233-236; Oppenheimer, The Female Labor Force.

152. John Moddell, Frank E. Furstenberg, Jr., and Theodore Hershberg, "Social Change and Transitions to Adulthood in Historical Perspective," Journal of Family History, 1:1 (Autumn 1976), 29.

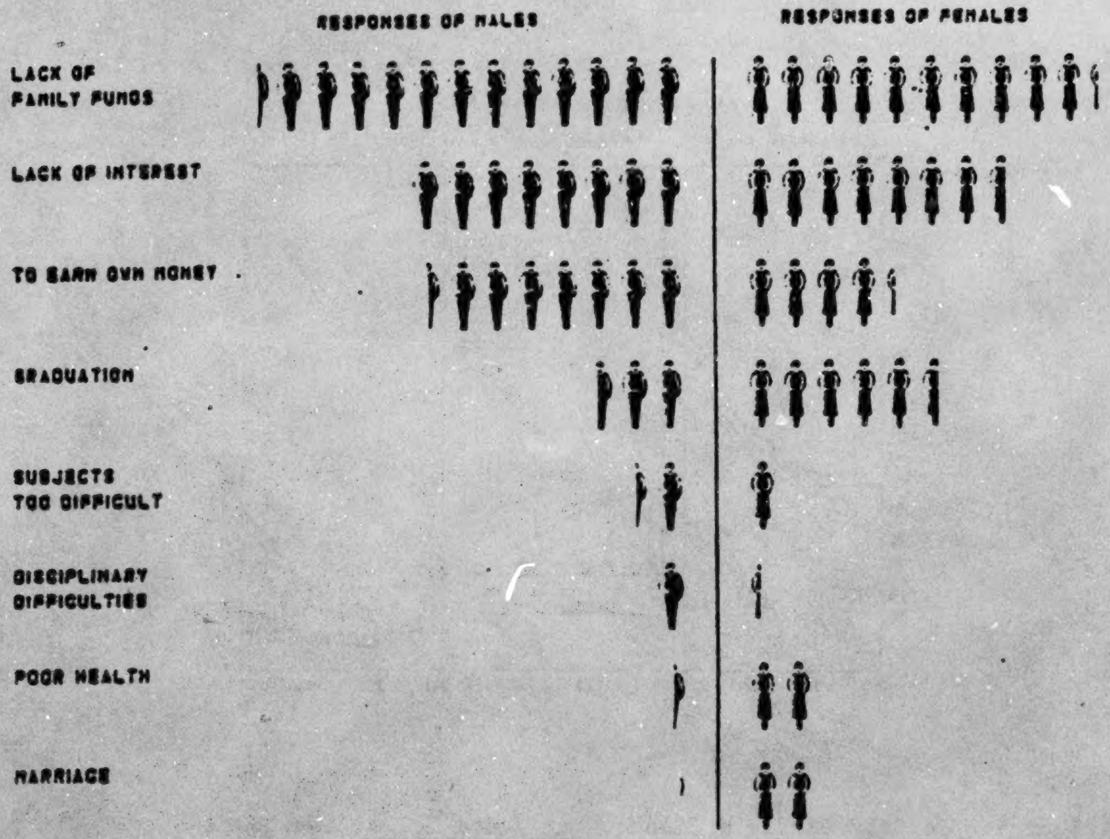
APPENDIX 1



In Handbook of Women Workers, 1975. Bulletin 297, United States Department of Labor (Washington, D.C., U.S. Government Printing Office), p. 190.

APPENDIX 2

WHY DO YOUTH LEAVE SCHOOL ?



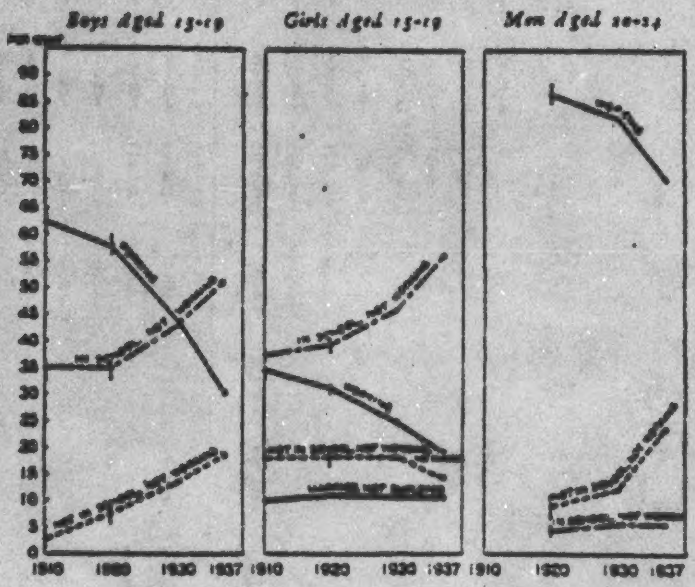
EACH FIGURE REPRESENTS THE REASONS GIVEN BY 5 % OF EACH SEX GROUP

Responses of 10,858 Maryland Youth interviewed for The American Youth Commission.

Source: Howard M. Bell, Youth Tell Their Story (Washington, D.C., American Council on Education, 1938), p. 65.

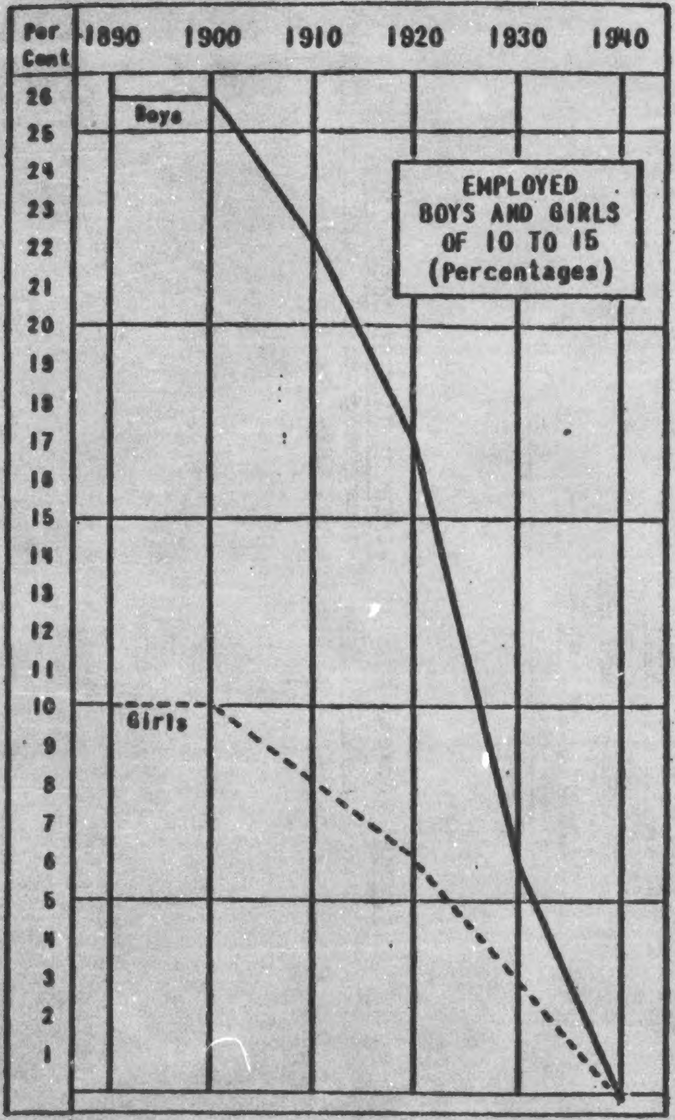
APPENDIX 3

WHAT YOUNG PEOPLE ARE DOING



Source: Dorothy Canfield Fisher, *Our Young Folks*, (New York: Harcourt, Brace and Co., 1943), p. 28.

APPENDIX 4: CHANGES IN YOUTH EMPLOYMENT



This graph is from figures in Paul David, *op. cit.*

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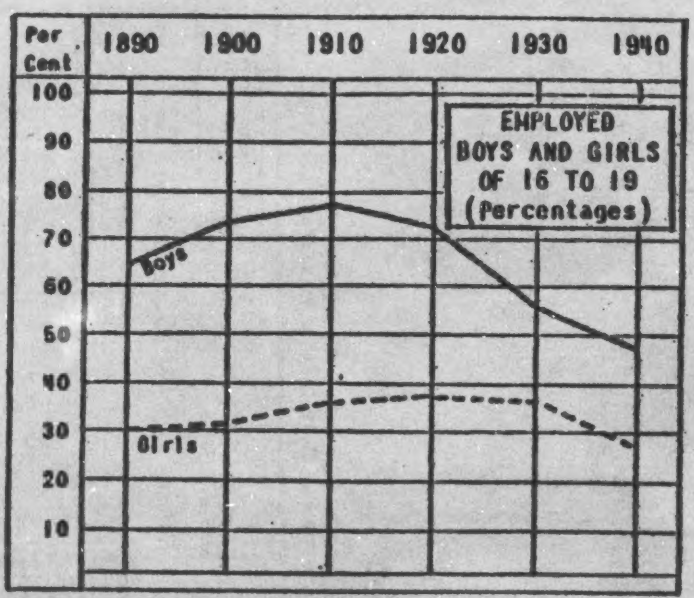

This graph is from figures in Paul David's *Post-War Employment: A Study of Long-Term Trends.*

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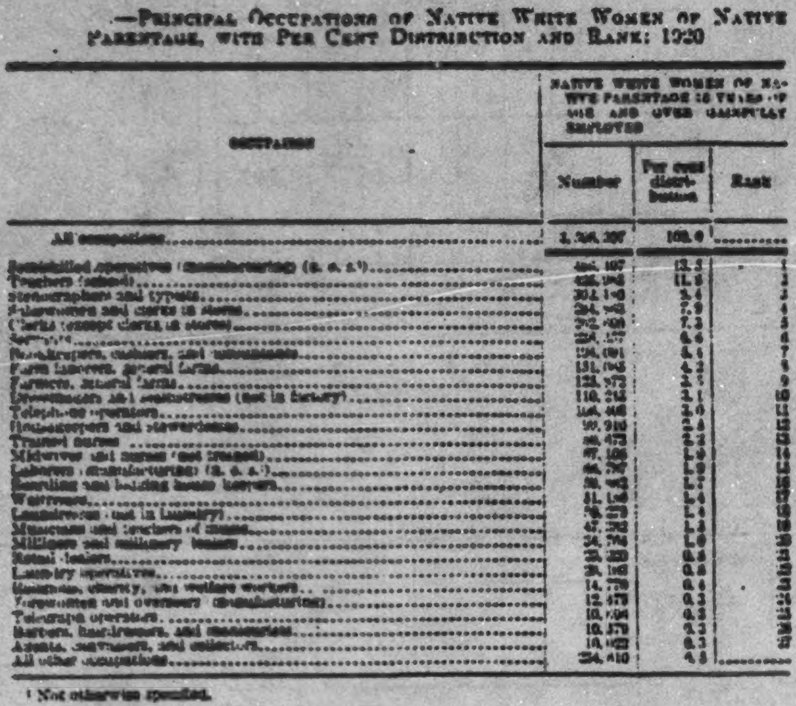
Source: Dorothy Canfield Fisher, Our Young Folks, pp. 30, 43.

APPENDIX 5



—PRINCIPAL OCCUPATIONS OF NATIVE WHITE WOMEN OF NATIVE PARENTAGE, WITH PER CENT DISTRIBUTION AND RANK: 1920

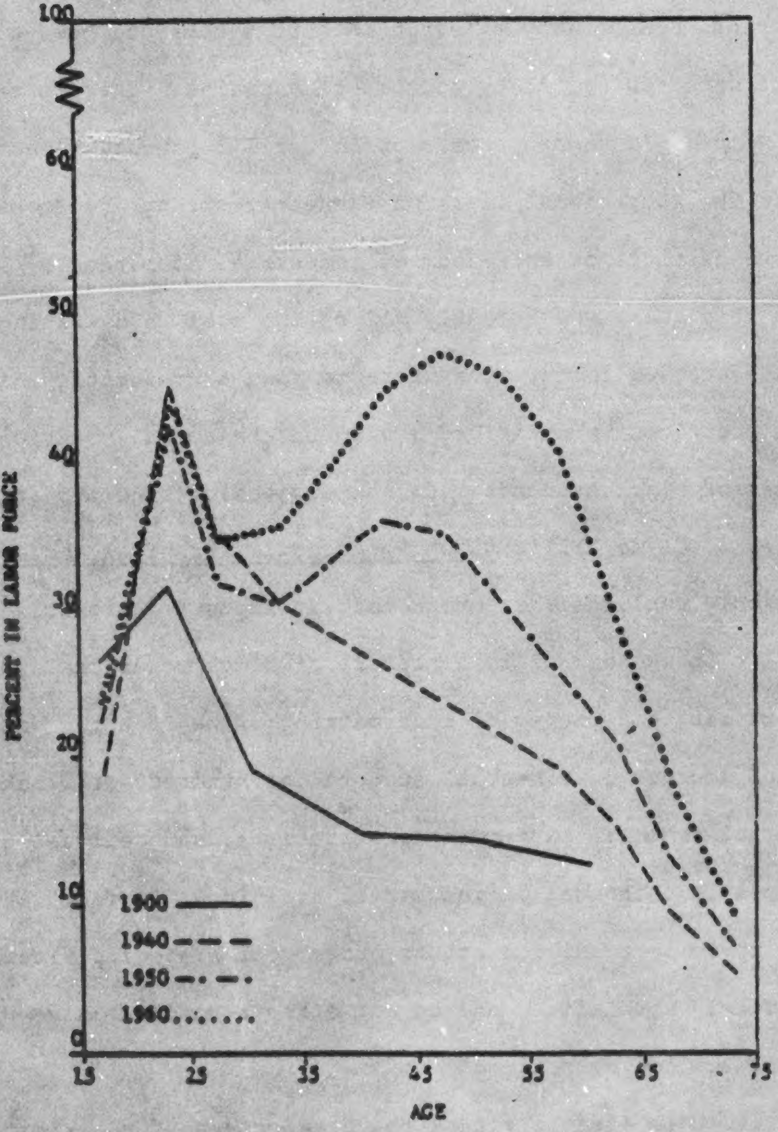
OCCUPATION	NATIVE WHITE WOMEN OF NATIVE PARENTAGE 16 YEARS OF AGE AND OVER GAINFULLY EMPLOYED		
	Number	Per cent distribution	Rank
All occupations	[illegible]	100.0	
Semiskilled operatives (manufacturing) (n. o. s.[1])	[illegible]	13.3	1
Teachers (school)	[illegible]	11.8	2
Stenographers and typists	[illegible]	9.4	3
Saleswomen and clerks in stores	[illegible]	7.9	4
Clerks (except clerks in stores)	[illegible]	7.3	5
Servants	[illegible]	6.6	6
Bookkeepers, cashiers, and accountants	[illegible]	[illegible]	7
Farm laborers, general farms	[illegible]	4.2	8
Farmers, general farms	[illegible]	[illegible]	9
Dressmakers and seamstresses (not in factory)	[illegible]	[illegible]	10
Telephone operators	[illegible]	3.0	11
Housekeepers and stewardesses	[illegible]	[illegible]	12
Trained nurses	[illegible]	[illegible]	13
Midwives and nurses (not trained)	[illegible]	[illegible]	14
Laborers (manufacturing) (n. o. s.[1])	[illegible]	[illegible]	15
Boarding and lodging house keepers	[illegible]	[illegible]	16
Waitresses	[illegible]	[illegible]	17
Laundresses (not in laundry)	[illegible]	[illegible]	18
Musicians and teachers of music	[illegible]	[illegible]	19
Milliners and millinery dealers	[illegible]	[illegible]	20
Retail dealers	[illegible]	[illegible]	21
Laundry operatives	[illegible]	[illegible]	22
Religious, charity, and welfare workers	[illegible]	[illegible]	23
Forewomen and overseers (manufacturing)	[illegible]	[illegible]	24
Telegraph operators	[illegible]	[illegible]	25
Barbers, hairdressers, and manicurists	[illegible]	[illegible]	26
Agents, canvassers, and collectors	[illegible]	[illegible]	27
All other occupations	[illegible]	[illegible]	

[1] Not otherwise specified.

Source: Joseph A. Hill, WOMEN IN GAINFUL OCCUPATIONS 1870 to 1920. Census Monograph IX (Washington, D.C.: Bureau of the Census, 1929), p. 88, Table 6.1.

APPENDIX 6

FEMALE LABOR FORCE PARTICIPATION BY AGE:
1900, 1940, 1950, AND 1960



Source: Valerie Kincaid Oppenheimer, The Female Labor Force in the United States (Berkeley: University of California, Institute of International Studies, 1970), p. 9.

The Historical Development of Black Vocational Education

James D. Anderson

INTRODUCTION

The original intent of this essay, in accordance with the theme of the conference, was to explore past research on black vocational education and guidance, the relation of education and work, and to develop an agenda for future research. Preliminary research into this subject, however, revealed that there were few secondary sources to appraise. There are some writings on the Hampton-Tuskegee program of industrial education, but most of these focus on the educational ideas of Samuel Armstrong and Booker T. Washington and the critique of this form of industrial education by W. E. B. DuBois. Even in this area, where nearly all of the published writings on black vocational education focus, it is rare to find a systematic analysis of institutional practices which afford a view of the actual vocational education experiences of black students. On the subject of black vocational education in general, Clyde Hall's Black Vocational, Technical and Industrial Education is the only published monograph that attempts to chronicle black vocationalism. But it is not really a history of black vocational education. Rather, it gathers bits and pieces of information on the founding dates, the first leaders, and sources of financial support for hundreds of black secondary schools, normal schools, land-grant institutions, and colleges that offered any courses in technical or industrial training. In fact, it is a directory. Some unpublished dissertations offer good historical insights, but they are uniformly specialized and do not offer a comprehensive view of black vocational education over time.

Accordingly, this essay sketches the development of black vocational education from the mid-nineteenth century to the present. Vocational education is defined broadly, including training for specific trades, instruction in work behavior and work attitudes, and vocational guidance programs. First, the essay starts with a look at the early and disappointing efforts to establish black trade and technical schools from 1830 to 1860. Second, there is a discussion of the ideas and practices of the post-Civil War industrial normal schools which dominated the field of black vocationalism from the late 1860s to the turn of the century. Third, attention then shifts to the "1890 Black Land-Grant Institutions" and traces their policies and practices to 1930. Fourth, the rise of black vocational guidance during the Great Depression is analyzed and traced to the World War II era. Fifth, the essay concludes with a discussion of recent trends in education and unemployment among black youth, and with some suggestions for future research.

Early Efforts for Black Trade and Industrial Education
1830-1860

Historian Benjamin Brawley's short pamphlet, Early Efforts for Industrial Education, revealed that black leaders and white anti-slavery leaders were interested in establishing black trade and industrial schools as early as the eighteenth century. These interests increased significantly with the emergence of militant abolitianism and the Negro Convention Movement in the 1830s. As early as 1829, black leader Samuel Cornish, then editor of The Rights of All in New York, suggested that Northern Afro-American communities support "one general college embracing all the mechanic arts, with a thorough classical education." There was some discussion of Cornish's proposal, but it was not until white abolitionists proposed an actual location for the college and guaranteed initial funding that the endeavor was seriously undertaken. In June 1831, black male activists from the major Northern urban centers assembled in Philadelphia for the First Annual Convention of the Free People of Color. At this convention, Simeon S. Joceyln, William L. Garrison, Arthur Tappan, Benjamin Lundey, Thomas Shipley, and Charles Pierce came before the delegates to propose the establishment of a Negro manual labor college in New Haven. Black leaders supported the proposal to establish "Manual Labor College" so that black youth, "in connection with a scientific education," could acquire a "useful mechanical and agricultural profession." After Arthur Tappan committed one thousand dollars to the project estimated to cost $20,000, plans were made for blacks and whites to raise the balance jointly. Samuel Cornish was selected to coordinate the black fund-raising efforts.

Early on, all seemed optimistic that the black "Manual Labor College" would receive general support from Northern white communities and prove itself a success within a short time. However, New Haven whites, foreshadowing future opposition to black trade and industrial education, "were as one in their protest" against the plan for a manual labor college and forced the initial project to be abandoned. In 1833, still attempting to realize their goal for a black mechanical and agricultural school, black and white abolitionists sought to transfer their resources to an academy in Canaan, Connecticut. But in Canaan, the white townspeople demolished the building that was erected to start a black manual labor college. Again, the college plan was squelched practically before it began. This unexpected hostility in both New Haven and Canaan surprised the black and white proponents of the manual labor college. But the project was considered "to be of too great importance to be abandoned without further efforts being made to effect it," especially since Samuel Cornish had already collected nearly three thousand dollars. Whatever the reason for the opposition, its supporters seemed convinced that such a plan could be realized and the idea persisted through the 1840s and 1850s. In the national black convention of 1847, a Committee on Education reported in favor of "a collegiate institution, on the manual labor plan," and a committee of twenty-five was appointed to implement the idea. This plan was also abandoned. Still, at the 1853 Annual Convention of the Free People of Color, which met in Rochester, there was renewed interest in a mechanical and agricultural college. The efforts were led by some of the most well-known black leaders of the era such as Frederick Douglass, James W. C. Pennington, James McCune Smith, Alexander Crummell, Martin R. Delany, and William C. Nell. These leaders and their white colleagues, however, were never able to overcome Northern white resistance and the idea of a black manual labor college was eventually discarded altogether.[2]

Although no "manual labor college" was established in the pre-Civil War era, the campaign for black trade and industrial training underscored peculiar problems that have characterized black vocational education throughout the nineteenth and into the twentieth century. The black trade and industrial education campaign was shaped in peculiar ways by a pervasive racism in the apprenticeship system. Frederick Douglass discussed the issue in March of 1853:

> Prejudice against the free colored people in the United States has shown itself nowhere so invincible as among mechanics. The farmer and the professional man cherish no feeling so bitter as that cherished by these. The latter would starve us out of the country entirely. At this moment I can more easily get my son into a lawyer's office to study law than I can into a blacksmith's shop to blow the bellows and to wield the sledge-hammer. Denied the means of learning useful trades we are pressed into the narrowest limits to obtain a livelihood.

Such labor-market discrimination placed the black school in the impossible position of attempting to elevate Afro-Americans to skilled jobs in the workplace by offering them vocational opportunities that were denied them in the white-controlled apprenticeship system. To be sure, blacks did not see the vocational school as the panacea for labor-market discrimination. Douglass, for instance, was well aware of the school's inability to remodel the social order. Reflecting on the employment problems of well-educated black youth, he asked: "Can the daughters find schools to teach or the sons find books to keep? Do abolitionists give them employment in their stores or counting-houses?" In fact, educated blacks usually could not find employment in fields for which they were trained.. The situation was the same, if not worse, for those pursuing occupations in the skilled trades. Yet, Douglass, insisting that blacks had to "Learn Trades or Starve," supported the manual labor college plan as an alternative to the racist apprenticeship system in the skilled trades. He and other black leaders were not relying exclusively or mainly on vocational education as a solution to labor-market discrimination. Primarily, they sought to prevent the educational system from operating under the philosophy that blacks had a special place in the economy, and more importantly, that it was the purpose of education to keep them in that special place. On the contrary, they urged the schools to act on the assumption that it was better for black youth to be trained for skilled work and not get it, than to have the opportunity arise suddenly and not be prepared. Further, a well-trained black working class would direct attention more forcefully to labor-market discrimination, whereas a poorly-trained one would reinforce strongly the myths of black inefficiency.[3]

A manual labor college or trade school, therefore, would not so much solve labor-market problems as make them apparent. Equal vocational education opportunities, it was believed, would make unequal apprenticeship opportunities appear even more unjust and irrational. These views, of course, overestimated the ability of schools to depart from trends in the dominant social and economic institutions. The schools were a vehicle for the purveyance of the racism that existed in the political economy. The type of racism in the apprenticeship system was also reflected in vocational training opportunities. There was not a single trade or technical school of even modest quality that was established for blacks in the nineteenth century or since then that promised to train a cadre of skilled black workers. Several mid-nineteenth century black institutions were identified as manual labor schools but none of them offered viable trade and technical training programs. Vocational training at the Peterboro Manual Labor School in New York, and Emlen Institute in Ohio was mainly unskilled toil that enabled students to support themselves while attending school. The Philadelphia Institute for Colored Youth was given a donation in 1837 for the establishment of a department of mechanic arts and agriculture. But the Quaker board of trustees did not act on the idea until 1889 when a new industrial building was erected to offer four-year courses in bricklaying, carpentry, printing, tailoring, and shoemaking. The Institute remained predominantly a literary school and only a few students were instructed in the industrial department that lasted from 1889 to 1902.[4]

There was little chance that mid-nineteenth century black educators could manipulate schools to counter the racist apprenticeship system. Still, they saw some merit in their own fight to equalize vocational training opportunities. Ideologically, the campaign to drive a wedge between vocational opportunities in schools and those in the workplace, however unrealistic, seemed worthwhile. Schools, by denying black youth equal access to vocational training opportunities, threatened to rationalize and make acceptable the intolerable contradictions generatedby a pervasive racism in the workplace. If schools channeled black youth into "their place," labor-market racism could be disguised as an educational problem, thus drawing attention away from basic inequities in the workplace. Black educators and leaders, therefore, attempted to counter this development by forcing the schools to be evenhanded in their vocational education offerings. This they failed to accomplish. Black educators and leaders began to comprehend the improbability of separating schooling from the dominant values and trends in the nation's economic mainstream. The racism in the political economy did not stop at the schoolhouse door. It pervaded every aspect of the educational system and vocational education opportunity was no more liberal than apprenticeship opportunity.

The Industrial Normal School

Immediately after the Civil War when the campaign for black public education was launched on a grand scale, a different type of industrial education was emphasized in privately supported normal schools. Between the founding of Hampton Institute in 1868 and the death of Booker T. Washington in 1915, Northern businessmen-philanthropists and Southern white school reformers came to recognize "Negro industrial training" as the appropriate form of education to assist in bringing racial order, political stability, and material prosperity to the American South. In their opinion, the model most suitable for the socialization of the newly emancipated black people, and hence the amelioration of Southern racial and political conflict, was being developed by Samuel Chapman Armstrong at Hampton Normal and Agricultural Institute in Hampton, Virginia.

The historiography is most confused on the social purposes of the Normal school model of industrial education. Some, like Clyde Hall, contend that Armstrong and his staff "wanted to see the skilled artisan traditions continued that existed among blacks during slavery." Others, such as Allen W. Jones and Donnie D. Bellamy, maintain that the Hampton-Tuskegee model of normal school industrial education was aimed primarily at helping black farmers turn their labor into assets for themselves. Still others, such as August Meier, emphasize, on the one hand, the moral aspects of normal school industrial education and, on the other hand, contend that it was preparing black youth for "lives as small individualistic entrepreneurs."[5]

The traditional emphasis on Hampton as an agricultural and mechanical school has obscured the fact that it was founded and maintained primarily to train black teachers for the American South. Hampton did not even offer trade certificates until 1895, and then only to a tiny minority of its student population. In 1900, for instance, 45 of Hampton's 656 students were enrolled in the Trade Department. From its inception until well into the twentieth century, the school was devoted almost exclusively to teacher training. Indeed, the intention to become a teacher was a condition for admission at Hampton in the early years.

Not surprisingly, between 1872 and 1890, 604 of Hampton's 723 graduates became teachers. The pattern was basically the same for other black normal schools that abounded in the post-Civil War South. Tuskegee Institute and smaller industrial normal schools, such as Snow Hill [Alabama] Normal and Industrial Institute, Fort Valley [Georgia] High and Industrial School, and the Utica [Mississippi] Normal and Industrial Institute, were based on the Hampton model of industrial education.[6]

This model of industrial education was designed to train black industrial teachers who were expected to model and transmit the Euro-American work ethic to the Afro-American working class. Hence, a sharp line divided the manual labor college idea of the 1830s from the post-Civil War industrial training curriculum. The manual labor college plan proposed to train workers for specific trade and technical occupations which blacks could not enter readily as unskilled laborers. The industrial normal school program was aimed primarily at instilling the "proper" work attitudes, especially among the masses of unskilled black workers. Indeed, the normal school advocates expected the majority of black workers to remain in the South as unskilled domestic and agricultural laborers. From their viewpoint, there was one major problem; ex-slaves had the "wrong" attitude toward work. The industrial normal school proponents argued that blacks inherited from slavery the value of extended leisure, and consequently, steady, routinized work as moral duty was disapproved. The white slavocracy for generations had scorned work as beneath its dignity and when Afro-Americans became free, they adopted similar prejudices in their struggle for recognition and self-respect. This attitude, so the story went, frequently prevented black workers from recognizing the dignity and possibilities of improvement in the simple, manual tasks in which the majority of them were engaged. This was the more ingenious and polite version of the lazy-shiftless Negro tale. At other times, however, industrial normal school advocates were not so polite. In 1891, Armstrong maintained that of the eight million or more blacks, "a large third, say three millions . . . are a 'low down' shiftless class . . . lazy . . . living from hand to mouth . . . grossly immoral." The majority of the others, he believed, had not internalized the right attitudes toward work. Hence, "The Negroes who are to form the working classes of the South must be taught not only to do their work well, but to know what their work means."[7]

But first it was necessary to condition the ideas, personality, and attitudes of the teachers who were expected to model and transmit the Hampton-Tuskegee values among the Afro-American working class. For Armstrong, Hampton students would be properly drilled in the "habits of living and labor, . . . in order that graduates may be qualified to teach others these important lessons of life." He considered hard labor the first principle of civilized life and he drilled Hampton students in manual labor routines so that the teacher-graduates would inculcate the values of industriousness in Southern black school children. "If you are the right sort of man you will engage in any sort of labor, and dignify it," declared Armstrong. Indeed, "A man had better work for nothing and find himself than to spend his time in idling and loafing." Therefore, Armstrong encouraged blacks to "Plow, hoe, ditch, grub; do anything rather than nothing." Routine and repetitive manual labor activities were developed at Hampton and other industrial normal schools in order to condition teacher-graduates to serve as missionaries of the puritan work-ethic in Southern black communities.

Hampton's industrial education system comprised three interrelated areas: the academic program, the manual labor system, and a strict social discipline code.

The academic program, aside from preparing students to teach common school, was designed to inculcate prospective teachers in the proper attitudes toward work. It was believed, however, that proper work attitudes could only be learned in actual work processes. Hence, the manual labor system, developed to mold character through steady, hard labor, was organized to reinforce work attitudes with work behavior. The daily discipline routine served to "control the entire twenty-four hours of each day--only thus can old ideas and ways be pushed out and new ones take their place." The heart of Hampton's industrial education program was established in 1879 when Armstrong created the Night School. It opened with 36 students who were required to labor ten hours per day, six days per week, eleven months per year for two years. They attended academic classes two hours in the evening. Two years of work and night school were equivalent to one year of the normal school course. In their last two years of normal school work the students attended classes four days and worked two days each week. The Night School came to represent the industrial normal school idea. By 1893, 305 of Hampton's 541 black students were enrolled in the Night School. Tuskegee Institute, founded by Hampton graduate Booker T. Washington in 1881, replicated the night school concept, and other black industrial normal schools patterned themselves on the Hampton-Tuskegee model.[9]

Hampton's student-teachers were chiefly farm laborers, domestic servants, and mill hands. "Much of the labor that goes into our industries," reported Armstrong, "is neither skilled labor nor apprentice labor, but is made up of the great body of unskilled laborers who come here to work a year or two at whatever work the school may be able to give them." Male students worked in the sawmill, on the farm, in the kitchens as dishwasher and pantry boys, in the dining rooms as waiters, and in the cottages and smaller buildings as house boys.

Female students received even less diverse "training" and were encouraged to do little except "plain sewing, plain washing and ironing, scrubbing, mending, etc." In the words of the Hampton faculty, normal school students learned "how to work steadily and regularly, to attend promptly at certain hours to certain duties," and they "gained new ideas of the value of manual labor." Instruction in work attitudes was the main purpose of the Hampton model of normal school industrial education, not the training of students for specific occupations in skilled trades. As Armstrong put it, "We do not mean to say that much is not learned by every faithful student in these departments; he or she will be a better cook, laundress, or farmer, and surely much needed lessons in promptness and thoroughness are inculcated, but still the object in view is not to teach a trade but to get the work done."[10]

After 1895, a small minority of Hampton students did receive trade certificates in such practical work as carpentry, woodworking, bricklaying, harness-making, blacksmithing, and wheelwrighting. This small number of artisan-graduates was not viewed as any attempt to change significantly the status of black workers in the labor-market. Indeed, the vocational courses at Hampton were consistent with the occupations which claimed the largest number of male black artisans: milling, carpentering, masonry, blacksmithing. More importantly, however, the Hampton program was aimed ultimately at teaching the proper work attitudes to the large number of unskilled agricultural and domestic workers. At the turn of the century, 53.7 percent of black workers were agricultural laborers and 33 percent were in domestic and personal service. Industrial normal school advocates were not only content with the overall position of black wage-earners, they considered it necessary for the development of the Southern economy. The aim of training servants, for instance, was widely advertised. Industrial normal school student-teachers were taught "proper" work attitudes through unskilled work processes so that they would have no problems teaching the "dignity of labor" ethic to school children of farm laborers and servants. In contrast to the manual labor college idea of the 1830s, the post-Civil War industrial normal school was based on the underlying philosophy that black youth should limit their career choices to those occupations in which large numbers of blacks were then engaged, and to eschew those in which only a few or no blacks were found.[11]

Not surprisingly, the industrial normal school model spread rapidly across the South between 1880 and 1900. In addition to well-known normal schools like Tuskegee, Penn Normal, Snow Hill, and Utica, scores of kindred schools were modeled on the Hampton program. Schofield Normal and Industrial School and Voorhees Industrial School in South Carolina, St. Paul Normal and Industrial School, Manassas Industrial School and Christianburg Industrial Institute in Virginia, High Point Normal and Industrial School in North Carolina, and Okalona Industrial College in Mississippi were among the many small industrial normal schools emphasizing teacher training through a manual labor process. This was the form of industrial education that most Southern blacks experienced. The Hampton program was adopted as the normal school model and a watered-down version became the standard curriculum especially in rural elementary and secondary schools. In the early twentieth-century the majority of Southern rural black students attended elementary and secondary schools based on the Hampton-Tuskegee manual labor idea.[12]

The Black Land-Grant Institutions 1890-1930

In 1862, the United States Congress passed the first Morrill Act which provided for the establishment of a Land-Grant institution in each state to educate citizens in the fields of Agriculture, Mechanic Arts, Home Economics, and "scientific and classical studies." In the South, blacks were not permitted to attend the institutions first established under the Morrill Act of 1862. Moreover, although the federal law provided for separate but equal facilities, only Mississippi and Kentucky established institutions for blacks under the first Morrill Act, and only Alcorn University was designated "Land-Grant." To overcome this problem, a second Morrill Act was passed in 1890 specifically to support land-grant institutions "for the education of colored students in agricultural and mechanic arts." Thus, the black land-grant institutions are referred to today as "The 1890 Land-Grant Institutions." The black land-grant institutions are: Alcorn State University, South Carolina State College, University of Arkansas-Pine Bluff, Alabama Agricultural and Mechanical University, Prairie View Agricultural and Mechanical University, Southern University, Virginia State College, Kentucky State University, University of Maryland-Eastern Shore, Florida Agricultural and Mechanical University, Delaware State College, North Carolina Agricultural and Technical University, Fort Valley State College, Langston University, and Tennessee State University.[13]

Although the land-grant institutions were purposely initiated to train black students in mechanical and agricultural vocations, when Southern states actually responded to the federal guidelines, they designed programs which corresponded closely to the industrial education model established at Hampton and Tuskegee. Tennessee State University, for example, initially set as its goal the preparation of students "to fill positions as Foremen, first-class workmen, and teachers of their craft." This stated goal was altered in 1914 when the aim of the mechanical department proclaimed to upgrade the skills of those already employed in trades and to make skilled workmen of those who had "no knowledge of the trade processes." The trade offerings paralleled those first introduced at Hampton Institute in 1868, replicated at Tuskegee Institute in 1880, and implemented among black normal schools and land-grant institutions in the late nineteenth and early twentieth centuries. As with Hampton and Tuskegee, there were special certificates provided students who chose to pursue intensively and complete particular trade courses. Certificates in such trades as carpentry, bricklaying, and tailoring could be attained after three successive years' study. These courses at Tennessee State, however, were sparsely attended. The 1921-22 school year represented the period in which the largest number of students received certificates for advanced trade work. Six students were awarded certificates at this time. There were 583 students in regular attendance during the 1921-22 school year.[14]

Samuel Henry Shannon's case study of Tennessee State helps us to understand the meager attractiveness of the trade program as an avenue for future employment. Labor-market racism dampened or destroyed most students' enthusiasm for the trades. Nashville's local plumbers' union would only allow blacks to occasionally work as helpers and nothing more. Within the electrical field the opportunities for advancing were not much better. Blacks were not allowed to work for white electrical contractors, and if individuals chose to work independently, they had difficulty finding an electrical company that would sell them equipment. One black electrician recalled being arrested by the local police for practicing his trade: " . . . the police itself would catch us with the tools working and arrest you for vagrancy." Union access was also difficult in the trowel trades, but since bricklaying and plastering skills had been passed down for generations within the black community, white contractors felt they could ill afford not to have their services. One black bricklayer, a member of Nashville's Bricklayers Union Local 4, estimated that white members outnumbered blacks "about six to one" in the union, but there were "more Negroes in the field than was the white." Hence, even when blacks outnumbered whites in a particular trade, they faced enormous difficulties in gaining union membership and finding profitable employment. This reality served to discourage many black students away from the few trades that were offered in land-grant institutions.[15]

A few students, however, did complete the trade courses at Tennessee State, and their experiences reveal another problem, the serious gap between vocational training courses and the world of work. Practicing black artisans did not take the school's vocational training seriously, either as a "practical" learning environment or as a source of future workers "in the field." First, as W. E. B. DuBois had discovered in his work, The Negro American Artisan, the vast majority of black tradesmen learned their crafts outside of schools. Forty-one percent learned their trades through apprenticeship programs, 37 percent "picked-up" their trades, and 21 percent attended trade school. The best and most successful artisans learned their trades under the apprenticeship system or "picked-up" their trades. Second, the trade-graduates were regarded by successful artisans as highfalutin theoreticians who could not perform on the job. One bricklayer, who began his trade in 1900, stated that no more than "one or two" former Tennessee State students qualified to practice their trade. He described the problem of a school-trained employee, with his "little certificate," thusly:

> I had to let this fellow go because he didn't know how to lay brick right. He only knew how to stand there and argue and give equations and what not, which didn't even make sense to me, much less to the fellows that worked for me. So they weren't ready. Maybe one out of twenty . . . all it takes is to spread the mortar and lay the brick. The foreman and the superintendent got the damn theory.

This gap between vocational training and the world of work contributed further to the small number of Tennessee State graduates who succeeded as skilled artisans. Between 1912 and 1922, of the 518 graduates who listed their occupations in the

July 1923 catalogue, only 15 were employed as tradesmen. This was consistent with the general trend of land-grant school graduates, only a few individuals became artisans.[16]

The agriculture department had similar problems. There were three principal agricultural vocations for which the land-grant schools sought to prepare students. The particular areas were agriculture teaching, farm demonstration work, and individual farming. Students above the seventh grade were generally required to take agriculture. But evidence gathered from student transcripts and catalogues reveals that there was only token adherence to the requirement. Of the total course work taken by Tennessee State students between 1914 and 1922, no more than an estimated 5 percent was given to agricultural study. The vocational listings of graduates illustrated the low priority which agriculture, as a field, held for students. There were actually no graduates between 1912 and 1922 who listed farming as their occupation. Some external realities accounted for this situation. It was nearly impossible for blacks to attain land and the alternatives of tenant farming and sharecropping were unattractive. However, even for those students interested in pursuing a career in "scientific" farming, land-grant institutions were inadequately equipped to prepare students for this vocation. They had neither the financial resources nor the extension and research facilities necessary to train students in scientific agriculture. Tennessee State's request to the state legislature for an agricultural building for laboratory work and technical instruction, for a campus-based agricultural experiment station, and for agricultural extension workers, went unrecognized. It was not until 1956 that a separate agricultural building was finally attained. Indeed, exactly 100 years elapsed between the founding of the first black land-grant college in 1866 and the granting of funds for agricultural research by the United States Department of Agriculture in 1967. Thus, the vocational agriculture curriculum had little impact on the students in the areas of farm demonstration, extension work, individual farming, and agricultural research.[17]

Under such circumstances, in both trades and agriculture, land-grant institutions followed the Hampton-Tuskegee pattern of normal school industrial education. Unable to adequately train or place their students in skilled agricultural or trade occupations, the land-grant institutions' priorities were directed toward preparing prospective agricultural and mechanical teachers for the South's black public school system. As one former Tennessee State instructor explained: "It later got around to the point where you were not taught to go around and do the job itself. You were taught to teach." Since the agricultural and trade programs represented only an abbreviated and most inadequate preparation for practical work in the field, teacher-graduates were prepared to do little more than teach work values through simple hand work. Having virtually no experience with the modern plants and equipment necessary for the teaching of modern industry, the land-grant agricultural and mechanical graduates were, as DuBois called them, "tinkers and repairers." They were best prepared to meet the common problems of repairing schoolhouses, instructing their students in the use of tools, and teaching simple agriculture, cooking, sewing, and various elementary lessons in unskilled hand labor. The majority of land-grant graduates, therefore, became teachers in the Southern black public schools. Few graduates actually sought to directly apply their manual skill in farming and trade vocations.[18]

In vital respects, it was the educational practices in the industrial normal schools and the land-grant institutions, not the Washington-DuBois debates, that gave vocational and industrial education a negative image in the Afro-American community. Particularly, the black land-grant institutions differed sharply from the white land-grant institutions. Black land-grant institutions placed heavy emphasis on manual labor or hard toil while such practices had been generally discarded in white institutions by 1890. The most crucial differences, however, were in the curriculum offerings. The black institutions, until after World War I, served mainly as pre-collegiate teacher-training institutions whose teacher-graduates would instruct in the black public schools of the South. Manual training focusing on such work as carpentry and bricklaying were incorporated in the black land-grant curriculum to teach a few students trades. At white land-grant institutions most students were not in teacher-training and by 1890 fields like carpentry and bricklaying were already being abandoned in favor of scientific agriculture, engineering, and the broadening of the curriculum to include medicine, law, and business. They were becoming full-fledged, highly respectable, scientific and technological universities. The black land-grant colleges, on the other hand, were looked down upon by black college students as inferior teacher-training institutions for agricultural and industrial education teachers, an image they did not shed until the post-World War II era. One Tennessee State instructor recalled that his institution was "not quite regarded as being respectable" by black college students. Another instructor remembered that the land-grant students "were designated as farmers or as hayseeders." The lack of a college curriculum did not help matters at all. In the early twentieth-century, only one black land-grant school was offering a curriculum beyond the two-year normal course. In 1909, Florida State Normal and Industrial School awarded the first baccalaureate degree ever accorded by a black land-grant institution. Yet, no trend was established. By 1914, the Florida school remained the sole black land-grant institution offering a four-year, degree-granting curriculum. In fact, of the 5,997 students enrolled in black land-grant schools during the 1914-1915 academic year, only twelve were actually enrolled in a baccalureate degree program, and all of these were studying at Florida State Normal and Industrial School. Until well after World War I, pre-collegiate teacher training was the chief function of black land-grant institutions. In 1932, when land-grant schools enrolled a total of 5,698 students, 4,059 were preparing for some type of teaching. The black experience with "vocational education" in the land-grant and industrial normal school setting came to mean either pre-collegiate teacher training or routine manual labor that, for one reason or another, did not lead to gainful employment in skilled occupations.[19]

The early goals of black trade and industrial education, formulated by leaders like Frederick Douglass and Samuel Cornish in the mid-nineteenth century, had remained important as long as skilled occupations were considered of first importance. Elevating the black laborer, ultimately establishing a prestigious artisan and skilled labor class, were themes which had continually played from the 1830s through the 1920s. Yet when the industrial normal schools and land-grant institutions were firmly entrenched, they discarded the black uplift ideology by their deeds if not by their words, and the advent of "Negro industrial education" for traditional "Negro jobs" meant the end of the brighter side of black vocational education. Black youth came to view academic and professional education as the only avenues for rising out of unskilled agricultural and domestic labor.

The Depression and the Rise of Black Vocational Guidance
1930-1948

From the national economic depression of the 1930s to the wartime resurgence of Northern industry in the early 1940s, more emphasis was placed upon black vocational training than during any other period in Afro-American history.

The *Journal of Negro Education*, from its origin in 1932 to 1979, devoted only one of its yearbooks and special issues to the question of black vocational education, and that was the special issue in January 1935 on "The Vocational Guidance of Negroes." It is important to note that the *Journal*'s yearbooks and special issues were aimed at comprehensive and thorough coverage of the most urgent problems in black education and related areas. Between 1930 and 1942, the area of black vocational guidance, which focused largely on adjustment of black youth to the urban workplace, commanded the attention of the most noted black intellectuals. Afro-American researchers such as E. Franklin Frazier, Charles S. Johnson, Allison Davis, Ira De A. Reid, Alain Locke, Rayford Logan, Charles H. Thompson, Doxey Wilkerson, Benjamin E. Mays, Ralph W. Bullock, Robert C. Weaver, Ambrose Caliver and W. E. B. DuBois, to name only some of them, addressed the problems of guidance, vocational education, and the occupational preferences of young blacks. Similarly, white intellectuals such as John Dollard, W. Lloyd Warner, Robert Sutherland, T. J. Woofter, and George Zook were preoccupied with vocational training and its relation to the "crisis of Negro youth in the twentieth-century city."[20]

The widespread concern over black vocational guidance, between 1930 and 1942, was generated mainly by the rapid increase of the Afro-American youth population in the twentieth-century city and the impact of the economic depression upon that population. The rapid increase of the urban black youth population was, of course, part and parcel of the Great Migration that took place between 1910 and 1930. The expansion of Northern industry in response to World War I and the sharp decline in the flow of immigrants from Europe, opened up job opportunities for blacks in Northern cities. The repressive labor system in the agricultural South, the boll weevil's devastation of cotton farming, agricultural mechanization, and related factors caused rural blacks to seek new opportunities in Southern cities also. This movement to the city was highly selective of young adults who were less bound to the rural South and more anxious to respond to new opportunities.

The impact of the Great Migration was tremendous. In the thirty years between 1900 and 1930 the urban black population increased by more than three million. When the migration subsided in 1930 the black population was still mainly rural. But of the total black population, only 56.3 percent was rural, as compared with 66 percent in 1920, and 72.7 percent in 1910. To a population of only 790,000 blacks in the urban North in 1910, approximately 1,300,000 were added by 1930, and the black population in the urban South increased from 1,850,000 in 1910 to 2,961,000 in 1930. The main migration trend was from rural areas and small urban centers to Northern cities of 100,000 or more inhabitants. In 1930, there were 233,903 blacks in Chicago, or 530 percent of the black population there in 1910; 327,706 were in New York City, or 357 percent of the 1910 population; and there were 219,599 Afro-Americans in Philadelphia, or 260 percent of the 1910 population. In the 17 Southern cities with populations of more than 100,000 in 1930, the black population constituted 25.2 percent of the aggregate. Blacks represented more than 38 percent of the total population in Birmingham and Memphis; over 33 percent in Atlanta, Jacksonville, and Norfolk; and more than 27 percent in Washington, New Orleans, Richmond, Nashville, and Chattanooga.[21]

Consequently, the populations of young black persons in American cities increased enormously between 1910 and 1930. Of the 5,193,913 urban Afro-American in 1930, 447,155 were from 15 to 19 years of age and 560,215 were from 20 to 24 years old. Black youth from 15 to 24 years old numbered more than 59,000 in New York City, more than 38,000 in Chicago and Philadelphia, more than 25,000 in New Orleans, Washington, and Baltimore, and more than 20,000 in

Birmingham and Detroit. The rapid growth of the urban black youth population, culminating as it did on the eve of the Great Depression, created a very real social crisis in cities across the nation. The Great Migration brought them to the urban centers seeking new job opportunities, but before they could adjust to city life the Great Depression had placed them in disproportionately large numbers on the unemployment and relief records. The position of the Northern urban black was particularly desperate and remained so throughout the 1930s. In 1939, 12.8 percent of the whites and 45.3 percent of the blacks in Cincinnati were unemployed. In March 1940, the proportion of whites out of work in Philadelphia, Chicago, Detroit, and New York, varied from 12 to 18 percent; for blacks the figures ranged from 30 to 39 percent. These were the figures for all black workers; the rates of unemployment were even higher for blacks between the ages of 15 and 24. In 1935, for instance, two-thirds of New York City's black youth between the ages of 16 and 24 were either unemployed or out of school seeking work.[22]

Black liberal intellectuals and educationists were in agreement that schools and colleges contributed to the creation and perpetuation of this large-scale youth unemployment. To be sure, they all agreed that the high rates of unemployment were due mainly or in part to a "sick economy." Yet, they were equally convinced that black youth shouldered more than their share of the economic depression because black vocational guidance and education had been approached without plan or purpose. Reports reaching observers of the educational scene in the 1930s indicated clearly that a large percentage of black adolescents were in desperate need of vocational guidance. Two such studies were conducted by Ralph W. Bullock and Benjamin E. Mays in 1930. Bullock made a study of occupational choices of 1833 black high school boys in North Carolina, Tennessee, Georgia, Virginia, Missouri, and the District of Columbia. Benjamin E. Mays, then student secretary of the National Council of the Y.M.C.A., studied the occupational choices of 1,714 black students distributed in 22 different black colleges. Both studies sought to find out what occupations black youth were expecting to enter; the reasons they were inclined toward the occupation chosen; to ascertain the kind of vocational guidance that black youth received from the schools and colleges; and to discover the extent to which black students chose to follow the occupations of their fathers.[23]

Both researchers were alarmed at the high percentage of black students planning to attend college or do graduate work, and who had already decided on medicine, teaching, law or one of the professions as career occupations. Bullock's questionnaires revealed that upon graduation from high school, 1601 of the 1833 boys, or 87.6 percent of them were planning to enter college. Significantly, the percentage of boys expecting to go to college increased in accelerated proportions from the 9th through the 12th grades. Of the total population, 83.7 percent of the 9th graders, 86.9 percent of the 10th graders, 90.2 percent of the 11th graders, and 91.4 percent of the 12th graders planned to enter college. Benjamin Mays discovered that 90 percent of the 1,714 college students he interviewed planned to continue their study by doing graduate work or enrolling in professional schools. Both groups expressed occupational preferences that differed sharply from their father's occupations. In Bullock's high school sample, 1415 boys reported their fathers' occupations and 88 percent of the fathers were engaged in occupations of the unskilled, semi-skilled, domestic and personal service types; 12 percent were engaged in professions and highly skilled occupations. Only 5 percent of the boys who gave their fathers' occupations were planning to enter their fathers' occupations. More of the college students were inclined to follow their fathers' occupations, but these were primarily in the professions or in occupations in which the parents had already established a successful business. Still, out of 1366 students who gave their fathers' occupations only 163 or 12 percent preferred to follow the occupations of their fathers.[24]

Both authors were dissatisfied with their findings and what they indicated about vocational training in black high schools and colleges. They were particularly concerned that the vocational aspirations of black high school students were leading to the development of two distinct Afro-American classes, "the common labor mass and domestic servants at the bottom and the professional class at the top." In Bullock's high school population, 52 percent of the students were planning to enter 11 occupations of the professional type; namely, medicine, teaching, law, pharmacy, engineering, architecture, dentistry, science, art, painting, and music. Mays discovered that 85 percent of the black college student sample grouped themselves in roughly the same professions, leaving only 15 percent distributed among 49 other occupations. Very few of the high school or college students chose the skilled, mechanical, artisan, technical, commercial and business occupations which, according to Bullock, constituted "the real economic backbone of any group, race or nation." Similarly, Mays complained that little was being done "to build up a great middle class of skilled and technically trained [black] people."[25]

The narrow range of black student career choices was taken as solid evidence that they received little vocational guidance and were allowed to choose their occupations indiscriminately. This was viewed as not only bad for the black community but harmful to individual students as well. The authors argued that many of the students would drop out before entering or finishing college, and in order to live they would have to work like the vast majority of black workers, at unskilled personal service and domestic occupations. "But why this turmoil and disappointment?" asked Mays. Much of it could be avoided, he reasoned, by providing black youth "the help of men trained in the technique of vocational adjustment to help them find their way in the vocational world." Both Mays and Bullock maintained that black high school and college students were concentrated in a narrow range of occupational choices because of the tendency to seek opportunities where pathways had already been blazed (where blacks had already made good), and because the occupations chosen by most of them were arbitrarily selected. In an effort to find out why the particular occupations chosen by the students were selected, a careful examination was made of the reasons which they gave for their occupational preferences and to ascertain the type of vocational guidance literature which the students had read in choosing an occupation. Bullock found that only 6.56 percent of the high school students listed any material that could be classified as occupational or vocational guidance literature. Similarly, Mays concluded that the college students were "stumbling along rather blindly and haphazardly toward their careers." Students chose their occupations on the basis of "interests and likes," "desire to be of service to society," for "remuneration," "special fitness for the job," "satisfaction," and "the influence of parents and friends." When these statements were analyzed through interviews the researchers found them to be exceedingly "weak and meaningless." Actually, the occupational choices "were based on meager and unreliable information."[26]

It was studies such as these that called for and sparked the widespread emphasis on black vocational guidance in the 1930s. The authors were careful to distinguish vocational guidance from "vocational education." Vocational guidance was defined as "the giving of information, advice and the direction of experience with regard to choosing an occupation, preparing for it, entering it and progressing in it." On the other hand, vocational education was viewed as "the training of pupils for some particular occupation or vocation." There were three familiar components of vocational guidance: (1) inspirational; (2) informational; (3) diagnostic. The second and third were the most important dimensions. The function of vocational guidance was to gather and disseminate occupational information, to provide counseling based upon occupational information and a careful study of the individual, and to do placement and follow-up work. It was proposed that vocational guidance programs begin no later than the junior high school and continue through high school, college, professional school and even through the occupational life of the individual. Such training would give students a knowledge of the workaday world, inform them of the requirements for entering various occupations, make them aware of the occupational demands of their time and of the financial rewards for different kinds of work.

The vocational guidance movement caught fire in the early 1930s. By 1932, the need for federal involvement was seen as particularly necessary in the field of black education. Citing the deplorable vocational opportunities in black schools across America, critics lashed out at the Hoover administration for not addressing the relationship between urban schools and the economic health of black communities. In 1933, however, Franklin D. Roosevelt's administration brought into national prominence a number of progressive reformers whose educational views favored the organization of vocational guidance programs. Clark Foreman, President Roosevelt's trusted advisor on racial affairs, George Zook, the choice for Commissioner of the U.S. Office of Education, and Harold L. Ickes, Secretary of the Interior who was placed in overall charge of the Office of Education, called for the reorganization of black education, paying particular attention to the vocational education and guidance components.[27]

In May 1934, they sponsored the "National Conference on Fundamental Problems in the Education of Negroes." The conference, called by Harold Ickes was under the general chairmanship of George Zook. Dr. Ambrose Caliver, the black Federal Specialist on the Education of Negroes, was in charge of the immediate direction of the conference, which was designed to consider the special and peculiar problems involved in black education arising from the economic and social conditions of the 1930s. The reports for the conference were performed by fourteen committees over a period of several months. The committee on "vocations," chaired by T. Arnold Hill, industrial secretary of the National Urban League, reported:

> The difficulties encountered by Negroes in employment makes vocational guidance more of a necessity for them than for white students. Even if guidance were not accepted as an essential function of education, it would be necessary for those entrusted with the education of Negro youth to employ the principle of guidance if the large number of Negro students now completing schools and dropping out before graduation are to find employment . . .

The report concluded that neither black teachers nor students were sufficiently aware of the requirements in business and industry and the transitions taking place among workers engaged in them to prepare graduates for success and advancement in the labor-market. The committee on vocations called for new approaches, new courses of study, and new techniques in vocational education and guidance.[28]

The following year, in its special issue on "The Vocational Guidance of Negroes," the Journal of Negro Education emphasized the same themes: "The fact that many Negroes have found and still find it exceedingly difficult to enter many occupations solely because they are Negroes necessitates a guidance machinery that will not only meet normal vocational needs but will also successfully overcome the additional barriers of race." Black writers in this issue rejected the "old" underlying philosophy of black vocational guidance, which advised black youth to pursue those occupations in which many blacks were found and to eschew those in which only a few were engaged. This policy, they argued, tended to confine black youth to the lowest forms of labor and it accepted the assumption that blacks had a special "place" in the national economy, and that it was the function of education to keep them in that place. The editors and writers proposed a blueprint for change. First, black vocational guidance would recognize the historical fact that even though blacks found it extremely difficult to enter many occupations in significant numbers, there were black individuals engaged successfully in most occupations. Instead of accommodating to existing patterns, the black vocational guidance advocates called for concerted and systematic effort to find out how individuals overcame racial barriers. These investigations would be used to devise ways and means of utilizing insights learned by successful workers to widen the occupational horizon of blacks in general. Second, black writers rejected the idea that black youth should be guided mainly into occupations servicing the black community, such as social worker, nurse, teacher, lawyer, doctor, etc. Such an idea was based on the belief that black professional and social service workers could perform these occupations more effectively for the black community because they understood and were more sympathetic to black clients. Hence, jobs servicing black clients were recommended as special and semi-exclusive opportunities for black youth. While recognizing some elements of truth in this position, black writers rejected the overall idea because it placed vocational choices on a racial instead of an individual basis, and entrenched further the racial categorization of employment opportunities. Black vocational guidance advocates took the nonracist path, "that the occupational future of the Negro is inextricably bound up with that of all other workers in the country without consideration of race, and that only a policy of vocational guidance which recognizes this fact can be of any real value to Negroes."[29]

This view of vocational guidance outlined a new role for black education that was unalterably linked to what was happening to black youth in the industrial economy. Existing curricula and vocational guidance programs were now seen as double-edged swords, capable of including or excluding blacks from the nation's economic mainstream. It also allowed critics to castigate both black educators and white school counselors for leaving black students in "apparent confusion as to the actual possibilities of work and the methods of training." Sensing a tremendous gap which existed between black and white in areas of vocational training opportunities, guidance services, apprenticeship education and many other fields of specialized training, black critics lashed out especially at the ghetto schools of the North.

They blamed the ghetto schools for contributing to the creation and perpetuation of a wide vocational opportunity gap between white and black youth. "Such schools," said black sociologist Ira De A. Reid, "regularly commit atrocities in the name of occupational guidance for Negroes." As outlined by the 1935 conference on Vocational Guidance and Education for Negroes, these atrocities normally took two forms: (1) guiding black youth into jobs that were fast becoming obsolete and (2) preparing them for occupations that served further to entrench them in the unskilled ranks. Many of the critics affixed the blame on ignorant white counselors who often acted without knowledge of vocations black youth desired to enter or had already entered successfully. "The chances are two to one," Reid contended, "that the Negro students themselves know far more about these opportunities than the person or persons counseling them." A substantial number of critics, however, charged that the ghetto schools were guilty of deliberately denying black youth access to supportive guidance services and high quality vocational training courses.[30]

To support their charges of willful neglect, black critics pointed to a variety of techniques used by Northern school systems to repress black ambition.

In a Boston school, for instance, a separate school assembly for black students was ordered for the purpose of extolling to them the virtues of manual training and predominantly black schools. In New York City, an attempt was made by the Board of Education to restrict course offerings in the vocational schools of Harlem to areas "where Negroes can expect jobs." Under this plan, electrical training would no longer be offered to blacks as long as electrical contractors continued their refusal to employ them, and as long as trade unions excluded blacks from most apprenticeships in the skilled trades. At Wadleigh High School in Harlem, black girls were told by the principal not to register for commercial courses on the grounds that they would not have the opportunity after graduation to use such knowledge. Similar charges surfaced in the aftermath of the Harlem Riot of March 1935, when Mayor LaGuardia appointed an interracial commission of influential New Yorkers to investigate the root causes of the disturbances. Before the sub-committee on education, Harlem residents accused Charles Pickett, principal of the New York Industrial High School, of deliberately misguiding black students on vocational possibilities, and they maintained that Pickett's school was the dumping ground of Harlem's educational system.[31]

Such attacks on vocational guidance in ghetto schools emerged elsewhere. In the fall of 1935, Chicago's black South Side Citizens School Committee exposed conditions at Washburn Trade School. Like trade schools in other sections of the city, the South Side school offered apprenticeship and technical courses but made admission to them particularly difficult for blacks. The school's black students were invariably guided by the advice of vocational counselors to enter the so-called "lower" vocational track and were refused use of certain school equipment on the grounds that blacks rarely became members of trade unions which utilized those machines and tools. Unused machinery was often stored away in the school's basement, rusting and deteriorating, while black students were denied a chance to learn. Similarly, on the West Coast black critics condemned the rulings of local school boards barring blacks from taking vocational courses unless they could provide letters from employers promising them jobs after graduation.[32]

Black-controlled vocational guidance programs fell under different criticisms. Nevertheless, critics charged that black schools had been singularly remiss in their development of appropriate vocational guidance programs. "So far as I know," wrote Ralph W. Bullock, "there is not a single Negro college in America that has a department or school offering major courses in vocational and educational guidance." In his study of more than 200 public schools and colleges, he found no appreciable emphasis on helping students to decide what occupations they would enter after finishing school. Black public schools and colleges could not continue to neglect this phase of education, Bullock maintained, "and lay claim to meeting the educational needs of students." Benjamin Mays reached the same conclusion, "Vocational Guidance has been almost wholly neglected in our high schools and colleges." T. Arnold Hill of the Urban League criticized black educators who considered vocational guidance from the viewpoint of how it might be "slipped into a school program without disturbing the time-honored educational pattern." For Hill, "Educational aims should be consonance with social demands," and the lessons of five years of unprecedented unemployment, 1930-1935, proved the need for a restructuring of the black educational system. Above all, "students must be prepared for the occupational readjustment which will be forced upon them by constantly changing economic conditions."[33]

It was an interesting analysis of black economic conditions during the Great Depression that allowed vocational guidance advocates to blame the schools for the status of black laborers. Focusing less on the causes of the general rates of unemployment and almost exclusively on the specific causes of the disproportionately high rates of black unemployment, critics easily attributed the catastrophic position of black workers to the lack of vocational guidance. First, vocational guidance advocates maintained that black workers experienced disproportionately high rates of unemployment because they were concentrated in a few occupations that were especially hard hit by the depression such as the building trades. Hence, black laborers would not have suffered the same disproportionate degree of displacement if schools had guided them toward greater occupational diversification. The vocational guidance advocates did not mean to suggest that black workers would not experience some discriminatory unemployment in another period of economic decline. Rather, they argued that occupational diversification would make black laborers' position in the developing economy less marginal than in the post-World War I period of prosperity, and lessen the possibility that blacks would experience similar rates of unemployment in another major depression. Second, vocational guidance advocates blamed the schools for not preparing workers to adapt themselves to unexpected occupational changes or "technological unemployment." It was assumed that disproportionately higher rates of blacks were unemployed because they did not have the appropriate education and farsightedness to keep abreast of scientific and technological revoltuions in the economy. In this context, vocational guidance had a particular appeal that was missing from "vocational education" or trade and technical training. For instance, almost half the male black skilled workers were pushed out of their usual occupations between 1930 and 1936. A third of those displaced went into unskilled jobs and 17 percent were without work. Clearly, these workers were not unemployed because they lacked technical training. The basic weakness, contended vocational guidance advocates, was an education that did not prepare laborers to meet the problems of working and living in a modern industrial economy. Thus, youth needed more education about making intelligent occupational choices and satisfactory adjustment to an ever changing scientific and technological economy. Interestingly, in the 1930s this education was defined as more sociological than technological. "The type of vocational instruction most necessary for the vast majority of high-school students is not technical, but social," insisted T. Arnold Hill. Social education or vocational guidance would involve teaching black youth about labor problems, occupational diversity, production and consumption, efficiency, employment discrimination and related social issues.[34]

The job of increasing black vocational opportunitites through well-developed school guidance programs was more easily said than done. Indeed, black vocational education and guidance practices in the 1930s generated much disillusionment. This fact was well illustrated in 1936 when Ambrose Caliver, Federal Specialist on Negro Education, conducted a nationwide survey of vocational education and guidance opportunities for blacks. The survey employed 500 black relief workers who collected data on 27,366 black high school and college students in 150 urban and rural communities in 34 states. The theme of the survey's final report was that vocational opportunities for blacks had changed little from the mid-1920s to the mid-1930s. The land-grant colleges still prepared their vocational education students to teach home economics and vocational agriculture. Few of the black high school and college students were enrolled in trade and industrial courses. Students enrolled in trade and industrial courses were generally concentrated in bricklaying, carpentry and woodwork, masonry, shoemaking and repairing and tailoring. Caliver's report documented the number of black and white enrollees in the federally aided vocational courses in secondary schools in 18 states. White students were registered in 24 different occupations in the all-day schools, 36 different vocations in the evening schools, and 33 in the part-time and trade extension curricula.

Black students were registered in 12 different occupations in the all-day schools, 14 in the evening schools and 8 different vocations in the part-time and trade extension courses. There were no blacks enrolled in such trades as boatbuilding, boiler work, fire-fighting, general mechanics, greenhouse work, internal-combustion engines, ironwork, marble carving, natural gas, petroleum industry, power-plaht operation, practical engineering, pulp and papermaking, refrigeration and air conditioning, shipbuilding, sign painting, steel making, surveying, textiles, upholstering, and there was only 1 black enrollee among the 878 students in welding. Moreover, there were virtually no blacks enrolled in blue-print reading (11 out of 1434); commercial art (38 out of 1028); electricity (160 out of 2843); machine shop (118 out of 2695); metal trades (9 out of 1070); printing (28 out of 1805), and radio mechanics (33 out of 1283). Black students, concentrated in vocations such as bricklaying and tailoring, were far from achieving the kind of occupational diversity advocated by vocational guidance enthusiasts. In fact, black students were experiencing virtually the same vocational opportunities available to them prior to the 1930s vocational guidance movement.[35]

Information reaching Caliver's Washington office from schools across the nation proved uniformly dismal with respect to the vocational future of black youth. An official of the Pittsburgh Urban League reported that many black high-school students dismissed the survey's vocational questionnaire as a joke. "One lad," she reported, "said he hoped to secure the position of janitor at his own funeral." In Oakland, California, the public school system flagrantly discriminated against black youth in the assignment of students for vocational training courses. Teachers and guidance counselors were found tc be ignorant of black employment possibiiities and many seemed content to set low limits for black students. Racism in trade unions and businesses made these limits a reality.[36]

The sad state of education and vocational opportunity for black youth was also documented in social science research sponsored by the American Youth Commission of the American Council on Education. In 1939, the American Youth Commission, acknowledging the desperate state of black youth, funded seven studies to "determine what kind of person a Negro youth is or is in the process of becoming as a result of the limitations which are placed upon his or her participation in the life of America." Between 1940 and 1942, these studies were published by the American Council on Education. The black sociologist Ira De A. Reid prepared a preliminary volume reviewing published and unpublished studies of black youth in America. Drawing heavily upon government publications and unpublished doctoral dissertations, Reid produced In a Minor Key: Negro Youth in Story and Fact. Two noted black social scientists conducted original research projects on black youth in the lower South. Charles S. Johnson published a classic on Afro-American youth in the rural South, Growing Up in the Black Belt. The other, Allison Davis, teamed with white psychologist John Dollard to produce an equally significant volume, Children of Bondage, which analyzed the psychological effects of caste and class discrimination upon black youth in urban areas of Louisiana and Mississippi. W. Lloyd Warner, in Color and Human Nature, collaborated with two other researchers to explore the personalities of ghettorized youth in black Chicago. E. Franklin Frazier studied black youth in Washington, D.C., and Louisville, cities between the Deep South and the Northern ghettoes, and chose to call his book Negro Youth at the Crossways. J. Howell Atwood et al., in Thus Be Their Destiny, wrote a collection of short essays on black youth in small Northern communities. In Color, Class and Personality, Robert Sutherland summarized the findings of the entire project and presented a program of recommendations for educational and social planning.[37]

These studies were uniformly pessimistic in disclosing the mounting frustration of black youth in America. Schooling as it existed was not part of the solution, it was part of the problem. "Present conditions in and around the rural schools are far from conducive to the proper personality development of these [rural] youth," wrote Johnson. "A traditional, lifeless curriculum; the harsh, unintelligent disciplinary punishment; and the emphasis upon rote learning must share the blame with poverty for excessive retardation, and for the unrest and dissatisfaction of Negro youth." Allison Davis and John Dollard concluded, "the great majority of lower-class Negro children in Southern cities are retarded in graded schools," and they laid much of the blame on middle-class teachers and students. The Negro lower-class child was not allowed to make the proper responses in school because he was "stigmatized by teachers and their favored students on grounds of the 'ignorance' of his parents, the dialect which he speaks, the appearance of his clothes, and, very likely, the darkness of his skin." Frazier uncovered similar problems among black youth in the border-state cities. "Because of their social status and dark complexion, lower-class youth are subject to discrimination on the part of teachers as well as on the part of other pupils." The discrimination was brutal enough to cause the dark lower-class children to develop "feelings of inferiority and resentment."[38]

Class distinctions within the race, however, were considered merely part of the larger problem, "the ceiling of economic and social ascent." As Robert Sutherland put it, "the main basis of frustration is economic--the denial of the same chance as others to get an education and a reasonably secure and satisfying job." Many black youth expressed misgivings concerning the value of education since so many avenues of employment were closed to them. The lack of employment opportunities, Frazier maintained, convinced many lower-class youth "that illegal and antisocial means of making a living must be resorted to and are justified." Clearly, the poor quality of schooling documented by the social scientists stood in marked contrast to the vocational goals of black youth.

Charles S. Johnson, for instance, discovered that of 851 rural boys, 38.1 percent wished to enter professional careers, 17.2 percent wanted to enter skilled trades, 9.3 percent desired "clerical" work, and 10.9 percent preferred unskilled nonfarm labor to farming, while only 8.9 percent were inclined to do farm work. The occupational choices of the girls were even more heavily concentrated in the professions. Of 1,399 rural girls, 65.3 percent desired to enter professional careers, 11.5 percent wanted to do clerical or retail work, 9.1 percent preferred skilled work, 6.5 percent chose personal and domestic service, and only 1.2 percent wished to enter farm work. The girls were not only more pronounced in their preference for professional careers, but more positive in their rejection of farming as a vocation. And they were not merely responding to a "man's occupation"; they were similarly opposed to being farmers' wives. Vocational opportunities in black schools were hardly relevant to the occupational preferences of black youth. Indeed, Johnson concluded: "The gap between occupational expectation and reality is at present so great as to suggest that the expectation itself borders on fantasy." The researchers concluded that little could be done to help black youth without very general political and economic reforms.[39]

By the late 1930s both liberal and radical black critics were moving away from the public schools as a vehicle to solve the vocational training and unemployment problems of black youth, but for different reasons. The radicals rejected the two basic assumptions that undergirded the liberals' vocational guidance policy: (1) that black unemployment problems were solvable without fundamentally restructuring the economy; and (2) that a reorganization of the school curricula was essential to including black youth in the economic mainstream. They considered the first and especially the second assumption unwarranted. Unless labor-market racism was eliminated, John P. Davis declared, the New Deal could offer "nothing new for the Negro except maintenance of his inferior status by government fiat." Black columnist George Schuyler denounced "those charlatans who pretend to see a time when this vast army of young Negroes will be employed privately." Most of them, he added, "will have to work for the state, earning just enough to keep them alive and out of mischief." Ralph Bunche, taking a more radical position, argued that schooling was "compelled to reflect the status quo" and could do little about the economic status of black youth:

> We are living in an economy of capitalism and our educational system consistently harmonizes with the dominant capitalistic pattern. Our schools are extremely sensitive to the functions of capitalism. . . . When capitalism is hard-pressed with criticisms for its shortcomings, the schools are expected to provide its advocates, and if they demure, for reasons of educational ideas, capitalism tightens the economic screws until the schools surrender.

Schools would not be permitted to "remodel the social order" and, therefore, they could not solve the problems "of the masses of working-class Negroes." There was only one sensible path for the schools to take--provide black youth with a "good, sound training in the fundamentals of education." E. Franklin Frazier took a similar stance. "If the vast economic forces which control the destinies of Negro industrial workers and farmers cannot be influenced by the educational process," Frazier advised, "an intelligent recognition of this fact is better than chimerical schemes for advancement which are bound to result in disillusionment." These critics did not push for any serious reorganization of the school curricula.[40]

Black liberals, failing to open up vocational training opportunities for black youth in the public schools, attacked the problems of education and unemployment through New Deal relief programs. They pushed for and practically gained for black youth equal representation in the National Youth Administration, the Emergency Education Program, and the Civilian Conservation Corps. These programs were established ostensibly to increase the employability of each enrollee by providing counsel, guidance, vocational instruction, and work experiences. The number of blacks receiving aid from the National Youth Administration rose from 5,000 a month in 1933 to 28,500 in 1937, while nearly 180,000 black students were supported by the agency to continue high school. Black monthly enrollment at Emergency Education Program classes mushroomed from 50,000 in November of 1935 to over 500,000 in 1939. Thousands of black youth were enrolled in the Civilian Conservation Corps which was established in 1933 to take armies of unemployed young men and give them healthful work and beneficial experiences in conservation camps. Many of the vocational training courses in these relief programs such as cooking, table-waiting, laundering, tailoring, and shoe repairing were reminiscent of the land-grant and industrial normal school programs. But black liberals like Mary McLeod Bethune, Ira De A. Reid, Robert Weaver, T. Arnold Hill, and Ambrose Caliver gave the federal programs high marks because they offered black youth their first real chance to be clerks, stenographers, supervisors, typists, bookkeepers, store managers, etc. The promise of nondiscriminatory employment training opportunities in federal programs kept dissatisfaction at a minimum.[41]

Vocational training opportunities in federal education programs, followed by increased employment in the World War II defense-related industires, did much to cast black vocational education and guidance programs into oblivion. A million black workers entered civilian jobs between 1940 and 1944. In 1943, when a drop in the number of white applicants for defense training created an acute shortage of skilled labor, many black workers were hired. By 1944, the number of black workers in skilled jobs doubled. These workers entered new industries and plants, where prior to World War II, few, if any, had been employed. The wartime emergency created overnight more industrial and occupational diversification for blacks than had occurred in the 75 preceding years. Although the vocational guidance programs had been designed especially to achieve "occupational diversification" among black workers, they had virtually no impact on blacks' position in the labor-market. Clearly, the war could place blacks in skilled jobs faster and in greater numbers than the schools. The resurgent wartime economy decreased significantly the unemployment rates of black youth. In 1948, for instance, teen-age male unemployment rates were 7.6 percent for non-whites and 8.3 percent for whites. The fact, however, that blacks had to wait for a wartime economy to recoup occupational losses sustained during the Depression was an indication that the problems would recur under peacetime conditions.[42]

Education and Youth Unemployment 1950-1979

Throughout the 1930s and into the 1940s, black vocational education and guidance advocates had called for a reorganization of the school curriculum in order that schooling would do more to prepare black youth for employment. The more they studied the relationship between education and work, however, the more they realized that there was little relation between the type of curriculum pursued and the occuaptions of secondary school graduates and non-graduates. Ira De A. Reid's 1938 survey of 213,983 white-collar and skilled black workers revealed that less than one-fourth had taken some form of business or trade training. One-third of the workers secured their fundamental training on the job and a high school diploma appeared as the most important factor in determining acess to white-collar or skilled occupations. In 1939, Robert Weaver, with data secured from 78,330 male black skilled workers concluded "that vocational education for skills has been least effective among Negroes where it has been most loudly championed." In 1940, Ambrose Caliver, studying the relation of education to the occupational status of 20,260 black high-school graduates, found that high-school graduates, irrespective of curriculum studied, received better occupational opportunities than non-graduates. The 64.8 percent of graduates and non-graduates who had no vocational training, as well as the 11 percent who admitted that their vocational training did not help them in securing work, dealt crippling blows to the vocational guidance campaign. The absorption of many black youth into the wartime labor-market, then, came as a welcome relief for those who had run out of educational proposals to solve the problem of black youth unemployment.[43]

Against this background, the question of academic versus vocational education for black youth, which had been much debated from 1930 to 1940, became far less important in the post-World War II period. Black educators and civil rights leaders turned their attention to the issues of school desegregation and equality of opportunity in academic secondary schools and colleges. The irony of this position was that it placed black educational goals squarely in line with the much criticized educational and vocational preferences of black youth during the 1930s. Occupational choice or vocational aspiration surveys conducted in the 1930s, 1940s, and 1950s revealed that the majority of black high-school students were aspiring to jobs which required mainly academic training in and beyond the high school. The majority of black youth aspired to professional or semi-professional occupations. Approximately 19 percent chose occupations in the clerical and sales fields. Vocational aspirations for the skilled trades declined steadily from 1930 to 1960. In 1930, Bullock found that 20 percent of black high-school boys aspired to skilled trades. In 1940, occupational choice surveys documented that from 15 to 19 percent of high-school black males preferred skilled trades. In Paul Lawrence's 1950 survey of 460 California black students, 9 percent sought occupations in fields calling for craftsmen or kindred workers, and B. A. Turner's 1964 publication showed that only 3.2 percent of the black high-school students surveyed aspired to the skilled trades. Convinced that racism by unions and management blocked their entry into apprenticeship programs, black youth concentrated almost exclusively on traditional academic preparation. Thus, when the 1950s witnessed a strong emphasis on "the search for talent" black youth were ready to respond. The new Federal policy of aid to education, designed to increase college enrollments, fitted well with the long-term academic interests of black youth.[44]

The post-Brown social climate, the "search for talent," and its attendant educational opportunities had an enormous effect on black academic performance. The median years of school completed by blacks increased from 5.8 in 1940 to 12.3 in 1976, at which time there was no noticeable difference between blacks and whites in the median number of years of school completed. In 1976, the median years of school completed by whites were 12.6. As Dorothy K. Newman points out, the upsurge in black educational achievement was extraordinary because so much of the "catching up" took place in a few short years. In 1960, 42 percent of blacks 20 to 24 years old had completed high school compared to 66 percent for whites in the same age category. In 1974, 72 percent of blacks 20 to 24 years old had completed high school compared to 85 percent for young whites. Current reports show that young blacks continue to improve their high-school completion rates. The U.S. Commission on Civil Rights documented that, in 1976, over 74 percent of blacks 20 to 24 years old had completed high school.[45]

The percentage change in college enrollment, though exaggerated, was still startling. In the eight years between 1966 and 1976, the number of black students enrolled in college increased from 282,000 to 1,062,000 or by more than 275 percent. In that period, blacks' percentage soared from 4.6 percent to 10.7 percent of all collegians. To be sure, there are still noticeable differences between black and white college enrollments. First, in 1977, of the black and white high-school enrollments combined, blacks comprised approximately 18 percent of the total. Yet, the black percentage of the total (black-white) college enrollment was only 12.5 percent. Second, we find that the percentage distribution among two-year colleges, four-year colleges, and universities is statistically significant along racial lines. For the black collegians, in 1975-76, 34 percent were enrolled in two-year colleges, 44 percent in four-year colleges, and 16 percent in universities. For white collegians, only 23 percent were enrolled in two-year colleges, 44 percent in four-year colleges, and 33 percent in universities. Such distributions undoubtedly affect differential access to professional and employment opportunities. Third, there is a noticeable difference between blacks and whites in the proportion completing colleges. As of 1976, among 25 to 29-year-olds, for every 100 majority males, 34 were college educated, while only about 11 out of 100 minority males or minority females were college educated. "In other words," reports the U.S. Commission on Civil Rights, "most minority and female groups remain only about 30 percent as likely as majority males to have a college education." Hence, significant inequalities still persist.[46]

However, there have been tremendous gains since the Brown decision. Blacks have virtually doubled their median years of school completed, doubled the proportion who are high school graduates, almost tripled their rates of college attainment during these years, and increased sharply their enrollment percentages in high school and college. Clearly, the academic achievement level of the black population has not reached parity with whites. But when one takes a look at black educational attainment since 1950, the gains are highly visible. And these gains are even more remarkable when we reflect on the fact that they were achieved by a relatively lower-income minority population, in mostly segregated schools, and under considerable repression by the dominant society.

If these educational gains are solid, and since educational attainment (the number of years of schooling completed) is supposedly a prime determinant of access to occupations, then it is important to look at the impact of post-1950 schooling on black participation in the labor-force. First, it is revealing to look at the relationship between educational attainment and black and white participation in the labor force in 1950. In so doing, we find that many white workers who held good and respectable jobs in 1950 neither had nor needed much formal education. Dorothy K. Newman, in Protest, Politics and Prosperity, documents that in 1950 white high-school dropouts made up half the experienced civilian labor force. That year, white workers who had not finished high school comprised 65 to 70 percent of all the skilled and semi-skilled workers in industry (in crafts or production jobs); 50 percent of the police; 40 percent or more of all sales workers; and 30 percent of all clerical workers. In 1960, this picture had not changed significantly. Whites without high-school diplomas still made up 46 percent of the labor force. Although by this time 42 percent of the blacks 20 to 24 years old had completed four years of high school or more, virtually none had access to these occupations. In 1960, white workers comprised 95 percent of clerical jobs (bank tellers, 99%; secretaries, 98%; telephone operators, 97%), 97 percent of the salespeople, 95 percent of crafts (compositors and typesetters, 98%; electricians, 99%; airplane mechanics, 96%; and tool and diemakers, 100%), 96 percent of the bus drivers, and 98 percent of the police. In short, white high-school dropouts had much greater access to such occupations than black high-school graduates. The statistics for 1970 reveal that this pattern persisted into the present decade. In 1970, one-third of the total labor force still consisted of white workers who had not finished high school, and black high-school graduates still found it extremely difficult to secure jobs as salespeople, clerical workers, police, and craftsmen.[47]

Black youth still find it almost impossible to gain access to the skilled trades. What Frederick Douglass said in 1853, that it was easier for his son to enter law than mechanics, rings true today. Between 1950 and the present, there have been very few black apprentices in the United States. The U.S. Census Bureau reported that blacks constituted 1.9 percent of apprentices in the labor force in 1950 and 2.52 percent in 1960. According to census figures, there were 2,190 black apprentices in 1950 and 2,191 in 1960. Significantly, the only apprenticeship classifications in which blacks even approximated their proportions of the total work force in 1960 (10.6%) were the building trades. Within the building trades, however, black workers were concentrated primarily in the laborers' jobs and in the so-called trowel (cement masons, plasterers, and bricklayers) and the carpentry trades. In 1965, a survey by the President's Committee on Equal Employment Opportunity of 989 construction industry contractors, 281 employer associations and 731 unions uncovered the gross underrepresentation of blacks in apprenticeship programs. The survey showed that in thirty Southern cities, of 3,696 apprentices selected for the five building trades (plumbers, electricians, sheet metal workers, ironworkers, carpenters), only twenty-six were black and twenty of these were in the carpenter's union, the one that has traditionally been most accessible to blacks. In non-Southern cities, of the 5,908 apprentices selected for the five building trades surveyed in these cities, 133 were black, 70 of whom were carpenters.[48]

Since 1950, in good times or bad, the black youth unemployment rate has remained substantially higher than the white, usually twice as high. Joblessness among black teenagers (16 to 19), for instance, soared from 16.5

percent in 1954 (compared to 12.1 percent for white teenagers) to 36.3 percent in 1978 (compared to 13.9 for white teenagers). Moreover, according to the National Urban League, the1978 figures are low. Using a hidden unemployment index, adjusted for temporary and part-time employment as well as for potential workers discouraged from seeking jobs, the Urban League estimated that more than 60 percent of the black teenagers were without full-time jobs during 1978. In Vernon Jordan's opinion, "Black America today verges on the brink of a disaster."[49]

Why is it that blacks' remarkable increase in educational attainment has not increased significantly their chances of finding and holding a job or of getting better jobs and making more money? As any student of black history would suspect, there is no dearth of rationales to explain this phenomenon. One, however, has emerged as most popular in rationalizing the persistent high unemployment rate among black workers despite such changes as economic growth, migration, and advances in schooling. Black joblessness is attributed to the worst form of three kinds of unemployment. One kind is cyclical, caused by layoffs and the inability of the economy to produce new jobs during economic downturns. Another is the so-called frictional unemployment, which encompasses workers between jobs, entering the labor market, or temporarily laid off. The third form of joblessness, called "structural unemployment" is advanced to explain the persistently high unemployment rates among black Americans. Structural unemployment encompasses the pockets of seemingly intractable joblessness that exist in varying degrees, whether the economic cycle is in boom or bust. Unlike cyclical and frictional unemployment, structural unemployment is not directly related to the economic cycle, but to the skills training or background of the workers. In the case of black workers the structural unemployment concept holds that it is not so much their race that causes them to be unemployed, but the fact that they lack the skills, training or background to find and hold a job. This is in effect a return to the political-educational rationalizations of the depression years which blamed black youth unemployment on either poor education or mis-education, and drew attention away from underlying causes such as the basic inequality in the labor-market.

In vital respects, the myth that blamed black unemployment on poor educational training has exploded. If lack of education, and not labor-market racism, was the primary factor, then employment rates for black and white youths with similar education would be comparable. Instead, white high-school dropouts have had lower unemployment rates than black high-school graduates and lower than black youth with some college education. Thus, in its latest report on black youth unemployment, the National Urban League said, "the myth that a lack of skills has kept black teenagers out of the labor force is not an adequate explanation." This position differs sharply from the one taken by T. Arnold Hill of the Urban League in the 1930s, who was strongly influenced by the social climate that blamed black youth unemployment on a lack of education and promised rewards for achieving it. The upsurge in black educational achievement, which took place in a few short years between the mid-1960s and early 1970s, has sharpened the contradiction between blacks' educational attainment and their job opportunities to an intolerable point.[50] For many civil rights leaders, professional educators, and researchers, the present crisis will open the way to ask new questions about the whole relation of education to black youth unemployment especially in the twentieth-century city.

Conclusion

In March 1978, ten months after the date of its founding, the National Association for the Advancement of Black Americans in Vocational Education held its first annual convention in Dallas, Texas. The meeting drew over 200 black vocational educators as well as politicans such as Congresswoman Shirley Chisholm and government officials like Ernest Green, United States Assistant Secretary of Labor. The participants agreed that the most critical issue facing black Americans, particularly the young people, is the high rate of unemployment. Two factors, inadequate training and discriminatory hiring practices, were singled out as major causes of the disproportionately higher rates of unemployment among black youth. The Association dedicated itself to "work directly" to overcome the problem of inadequate training and to "work indirectly" to overcome the problems of job isolation and employment discrimination. Such action, concerns, and even the views of the causes of black youth unemployment are not new. They remind us of Frederick Douglass' concerns in the mid-nineteenth century, of W. E. B. DuBois' arguments in the early twentieth century, and are strikingly similar to movements and issues during the Great Depression. DuBois, in his 1910 publication of The Negro American Artisan, said: "Race prejudice, more than any other single factor, retards the Negroes' development in the economic world." Further, he criticized bitterly the industrial schools for "teaching mere hand work" and for failing to train black students for "modern industry."[51]

New directions in black vocational education, therefore, should raise new questions or at least answer old ones in such a complete manner that they will not recur in the same forms over the next one hundred years. For instance, precisely how much of the black youth unemployment rate can we actually attribute to "inadequate training" and what constitutes the appropriate amount and quality of education for gaining access to stable, well-paying jobs. The United States Employment Service has looked at job analysis in terms of the worker traits required for successful performance. Its job-analysis manual, Dictionary of Occupational Titles, first published in 1944 and updated in 1956 and 1965, provides specifications for several thousand occupations. The Bureau of Labor Statistics published less detailed information over the same period of time in its Occupational Outlook Handbook. The references agree that the overwhelming majority of American workers have had as much schooling, in the formal sense, as their jobs demand, or more. This has been as true for black workers as for white. As Dorothy K. Newman put it, "Both the Dictionary and the Handbook still make the important point that most jobs in the labor force can be learned on the job, in a short time, and without a high-school diploma--jobs the white labor force has long managed to hold without a diploma . . . " It is against this background in reality that we must explore the relationship between education and black participation in the labor force.[52]

We should also ask similar questions about employment discrimination as a determinant of the extent to which young blacks participate in the labor-market. Sociologists such as William J. Wilson and Nathan Glazer claim that labor-market racism is abating rapidly. "In the economic sphere," contends Wilson, "class has become more important than race in determining black access to privilege and power." However, economists like Stanley H. Masters and Irwin Garfinkel are convinced that labor-market discrimination is still important as an explanation for black unemployment and black-white income differentials. Acknowledging a more liberal climate since 1965, Masters concluded, "there does not appear to have been any significant decrease in labor-market discrimination in the century following the Civil War." Garfinkel documented that labor-market discrimination "accounts for from 43% to 60% of the total earnings gap between black and white males." "If labor market discrimination were eliminated, the earnings of black men would increase by 25% to 35%." Clearly, we need to know more precisely what to attribute to labor-market discrimination and what to attribute to inadequate training before deciding where to concentrate the bulk of our resources in solving the problems of black youth unemployment and underemployment.[53]

Finally, general policy recommendations are likely to be enhanced by an understanding of the educational, social, and economic problems of black youth over time. A history of black youth in the twentieth-century city, covering population characteristics, unemployment, family, schooling, vocational aspirations, marriage, work experiences, crime, imprisonment, social groups, etc., is badly needed.

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[49] Newman, *Protest, Politics and Prosperity*, 42; Alfred L. Malabre, Jr., "Through Good Times and Bad, Joblessness Among Young Blacks Keep Right on Rising," *The Wall Street Journal* (February 1, 1979), 36; Michael Ruby and Henry McGee, "Blacks on a New Plateau," *Newsweek* (October 4, 1976), 73-74; Alfred L. Malabre, Jr., "After Shrinking, the Gap Widens Again Between Black and White Family Income," *The Wall Street Journal* (March 6, 1979), 40; "U.S. Figures Low on Black Jobless Rate, says National Urban League," *The Daily Illini* (July 26, 1979).

[50] Ibid., *The Daily Illini*.

[51] *Proceedings of the First Annual Convention of the National Association for the Advancement of Black Americans in Vocational Education* (Prairie View Texas: Prairie View A and M University Press, 1978), iv-v; DuBois, *The Negro American Artisan*, 122, 129.

[52] Newman, *Protest, Politics, and Prosperity*, 73.

[53] William Julius Wilson, *The Declining Significance of Race; Blacks and Changing American Institutions* (Chicago: The University of Chicago Press, 1978), 2; Nathan Glazer, *Affirmative Discrimination: Ethnic Inequality and Public Policy* (New York: Basic Books, Inc., 175), 42-43; Stanley H. Masters, *Black-White Income Differentials: Empirical Studies and Policy Implications* (New York: Academic Press, 1975), 46; Irwin Garfinkel and Robert H. Haveman, *Earnings Capacity, Poverty, and Inequality* (New York: Academic Press, 1977), 90.

OBSERVATIONS ON SELECTED TRENDS IN AMERICAN WORKING-CLASS HISTORIOGRAPHY

Herbert G. Gutman

* * 1 * *

Revisionist historians of American education have altered significantly our understanding of the development of the American educational system. They have focused our attention on long-neglected questions and on new ones, too. Conventional utopian views of the American educational system have been challenged. A compelling amount of evidence has been marshalled to argue that the educational system served to replicate the larger social system and changes in it over time, that it sanctified the ideology of individual achievement, and that it sustained class and racial privilege. These historians have done their work well. The world that children and their teachers once lived in looks very different as we enter 1980 than it did when we entered 1960.

Even the best revisionist educational history written in the past dozen years has suffered because of the increasing fragmentation and overspecialization of the historical craft. (That is the case, it must be emphasized, in all other areas of specialized historical study.) Revisionist educational historians, for example, have been isolated from fruitful exchanges with historians studying non-elite populations such as working men and women, immigrants, and Afro-Americans. Written by an outsider with an interest in these non-elite populations and their history, these pages briefly suggest some possible linkages between these important separate strands in our historiography. That is done in three ways. Recent general trends in working-class historiography are described first, summarized in ways that might be useful to historians of education. Selected themes from this new historiography -- particularly working-class self-activity and its relationship to class development and class formation --

are then examined as revealed in the voluntary efforts ex-slaves made to spread literacy prior to 1868. We consider, finally, how these and some other themes now being studied by working-class historians might be helpful to historians of education. That is done by briefly examining some data describing the relationship between class and ethnicity among selected groups of workers in Cleveland, Ohio, and Paterson, New Jersey, in 1880. These data pose important questions for historians studying class development and behavior as well as the relationship between "work" and "education."

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Just as there is a new educational history ~~exists~~, so, too, a new working-class history is being written. The differences between the older schools of labor history and these new works deserve brief comment. Those writing labor history prior to 1950 usually labored outside the historical profession. Most were economists. Their work had a very narrow focus but retains much value. More makes it useful than the vast quantity of historical materials gathered by John R. Commons, his co-workers, and their immediate disciples. David Brody writes persuasively of these historians and their importance:

> For the pioneering Commons generation, there was a prideful sense of mission in what they were doing: by their institutional scholarship -- central to which was history -- they were contesting the primacy of classical economics in the academy and, in the outside world, its pernicious message that collective action by workers constituted an inadmissable inteference with the free play of the market.

Labor history legitimized the early twentieth-century trade union in much the same way that mainstream academic historians then legitimized the nation-state by defining political, diplomatic, constitutional, and military history as the most proper subjects for historical inquiry. Early twentieth-century labor history served its purposes but at a great cost. It narrowed labor history into little more than studying the evolution of labor unions and the labor movement. These subjects, of course, retain a commanding importance, but the excessive attention devoted to them meant neglecting much else in the working-class historical experience. Whole aspects of that experience waited, as E.P. Thompson wrote in the early 1960s, to be rescued from "the tremendous condescension of posterity." Except for its emphasis on the trade union and the labor movement, Brody correctly concludes, the old labor history "left us...nearly ignorant of the history of the American worker."

The pioneers of American labor history never escaped from the general difficulties associated with the Whig fallacy of history. Indeed, they counted among its strongest practioners. The British social historian Gareth Stedman- Jones aptly characterizes that mode of analysis, describing it as "the view that the important aspects of any period of history are those that seem to lead directly to some aspect of the present." For several decades, most labor historians defined themselves that way so that labor history became little more than the evolution of industrial relations as well as what F.K. Donnelly describes as "a continuous linear progression toward the powerful trade union movement with which we are now familiar..."[1] Subordinate American social groups and classes unaffected in their history by permanent trade unions (slaves, unskilled factory workers, the rural poor, women, and immigrants) went unstudied. So did whole aspects of developing and changing working-class and lower-class beliefs and behavior such as the culture of the work place, family and sexual behavior, leisure, religion, voluntary associational activities, political activity, and even schooling. Important class experience of these kinds did not concern most working-class historians. They remained obscure because they did not "seem to lead directly to some aspect of the present."

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[1] The splendid essay by F.K. Donnelly, "Ideology and Early English Working-Class History: Edward Thompson and His Critics," informs this paragraph. The essay appears in Social History, 2 (May 1976), 219-238.

The best contemporary American working-class history has not surrendered a concern for the trade union and with working-class social movements. But the subject matter that concerns these historians has broadened far beyond these conventional themes. Some of these historians (this writer among them) remain convinced that examining new areas and asking new questions promises to enlarge our understanding of these old subjects as well as new ones. Many strands make up the new working-class history, strands that cannot be tied together neatly and marketed as a package to non-specialists. Put very simply, the full historical range of class experiences, beliefs, and behavior among all subordinate social groups and classes now concerns most working-class historians. Mere description of class experience, belief, and behavior suffices for some. Others integrate old and new data (some of it "quantitative" and some of it "literary") into explicit or implicit analytic "models." It is useful to list some of the significant themes of this new history. The new scholarship is best characterized thematically because the most sophisticated working class historians (men and women like David Brody, Alan Dawley, Alice Kessler-Harris, and David Montgomery) combine very diverse themes in artful ways.

Subject matter distinguishes the new from the old labor history. That point has been many times and merely needs to be mentioned here. Labor history is no longer the history of trade unions and working-class social movements. The non-trade unionist now commands the attention of most working-class historians. The methodology associated with the work of E.P. Thompson and other European pioneers in the field serves to study such diverse subordinate groups as indentured servants (E.S. Morgan), Afro-American slaves (Herbert Gutman), antebellum southern free blacks (Ira Berlin), unorganized male factory workers (David Brody and Peter Friedlander), and unorganized female factory and household labor (Susan Levine and Alice Kessler-Harris). Curiously (but with notable exceptions and especially among younger historians of the Mexican-American experience), immigration has been least affected by the new working-class history. (We explore the need for linking working-class and immigration history -- especially as it applies to educational history -- later in this paper.) The concept of working-class history has been enlarged to include long-neglected groups. Moreover, the full range of working-class (or lower-class) experience is now being examined. Working-class family life has its historians (Virginia Yans-McLaughlin, Tamara Hareven, and Elizabeth Pleck); so do work habits in the pre-industrial rural world (E.S. Morgan and James McGowan) and in the developed industrial capitalist setting (David Montgomery and Maurine Greenwood). Pre-political and political movements among the pre-industrial subordinate classes (E.S. Countryman, Rhys Isaacs, and Alfred Young) and among industrial factory workers (Michael Gordon, Leon Fink, and Douglas Shaw) command attention. Research exploring the critical conjunctures between 19th century working-class formation and development and immigration (Bruce Levine, Dorothy Schneider, and Heinz Ickstadt, John Jentz, and Hartmut Keil) has started. These examples illustrate some of the subjects now being studied by working-class historians. Others could be listed. But working-class historians, paradoxically, have shown little interest in the history of American education (a subject that intrigued earlier historians of American labor such as Paul Douglas, Frank Carlton, and John R. Commons).

Educational historians should find the themes emphasized in recent working-class history equally if not more relevent to their work than the new subject matter itself. Subordinate class experiences, patterns of behavior, and (despite many methodological difficulties) even beliefs can be uncovered by systematic and imaginative research. And their recovery has a value in itself. But how they relate to larger historical questions having to do with changing social and class structures and with the ever-present relationship between structure and process (and, once again, structure) is of much greater value. That is why some of the important thematic emphases in current working-class history deserve our attention.

Seven such themes are briefly examined:

First. Class formation concerns many working-class historians. That means examing the processes by which new subordinate social classes are formed and, most significantly, locating the moment in time when that happens. Much emphasis is placed upon the ways in which "old" culture traits (including work habits) affect the formation of new patterns of class belief and behavior. The works of Morgan, Gutman, and Peter Wood are useful here.

Second. Class development is viewed as process, a set of linkages between generational working-class experiences. The critical distinctions are not between types of workers (skilled and unskilled, male and female, native and foreign-born) but between generations of workers and comparisons over time. Such a perspective emphasizes the close relationship between class formation and class development. It becomes possible to examine what E.P. Thompson describes as "strongly-based and self-conscious working-class institutions -- trade unions, friendly societies, educational and religious movements, political organizations, periodicals -- working-class intellectual traditions, working-class community patterns, and a working-class structure of feeling." A difference exists between studying a developed subordinate class and subordinate class development. Brody's fine study of the steel industry and its workers deals with changes in a developed class. Montgomery's superb essays on shop-floor struggles over controlling productive processes occur in the same moment. Only Alan Dawley's recent study of the Lynn, Massachusetts, shoe workers grapples successfully with the full relationship between class formation and class development. That is its very, very great importance, an importance unaffected by the comparatively weak analysis Dawley gives to the developed working class. Dawley's work, incidentally, but very significantly, fixes in time the essential decades in which a new subordinate social class (the industrial working-class) emerged (1830-1890). Dawley's book, sadly, remains the only one of its kind to frame American working-class history in this way.

Third. The vast array of institutions that connect the "individual" to "society" -- the workplace, the family and kin group, the community, and the networks of voluntary class and cross-class associations (such trade unions, churches, schools, and mainstream as well as radical political organizations) -- and help define working-class consciousness as well as working-class experiences are studied in a diachronic framework that recognizes the transcendant importance of class development, not "class." It made big difference to live in a third as contrasted to a first-generation working-class family. (Working-class historians, incidentally, have a finer conceputal repertoire for dealing with first- rather than third- or fourth-generation working-class experiences.)

Fourth. Social conflict over scarce resources and inequality of all kinds is not incidental (or "dysfunctional") to the processes of class formation, development, and reformation. Such conflicts, indeed, affect the processes themselves. The nature of the conflicts, of course, changes over time. How and why that happens remain subjects for study.

Fifth. Within the vast array of institutions that connect up the "individual" to "society," a tension always exists between individualist (or utilitarian) and mutualist (or collective) ways of dealing with the daily problems framed by inequality. That tension, of course, changes over time and deserves careful study because it is central to the working-class experience. It reveals itself mostly through what Robert Bellah describes as "middle-distance" social networks.

Sixth. In any modern historical circumstances in which new dominant and subordinate social classes are formed, notions of legitimacy and hegemony are themselves historical processes. A new dominant class transform its power (sometimes based on the ownership of labor and other times on the ownership of inanimate means of production) into authority painfully and slowly. (That process nearly always involves resistance.) The same process also involves the creation of subcultures among the new subordinate social classes. Working-class historians examine the ways in which these alternate subcultures either become the sources of new oppositional movements or are incorporated into the larger social system.

Seventh. Most working-class historians reject reactive models -- even the most sophisticated -- as ways of explaining changing patterns of working-class belief and behavior. Such "models" are found to be reductive and inadequate. One reason reactive models have been found wanting is because of the rich record historians have uncovered of working-class self-activity in and out of the workplace. Such self-activity is shaped by the processes of class development and reformation. In turn, self-activity affects these same processes.

One way to examine some of these themes is with a case study. We briefly look at a new class: the slaves transformed into rural wage earners by the Civil War and the Emancipation. All of the essential themes outlined above are revealed in this little-understood moment in American working-class history. The ex-slaves were a new class. They carried into legal freedom older values and practices that promised to affect their behavior as rural workers. In this, they did not differ from Irish peasants moving to Boston in the 1850s, English coal miners moving to Ohio in the 1880s, and Jewish carpenters moving to New York City in 1910. Who these people were affected who they became, shaping even what Thompson describes as a developing working-class "structure of feeling."

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The relationship between working-class (or lower-class) self-activity (a central theme in the writing of working-class history) and educational changes of all sorts over time still remains obscure. What such study promises to reveal is best illustrated, somewhat ironically, by briefly examining the coming of schools to ex-slaves prior to the start of Radical Reconstruction. That subject has been studied in excessive detail by specialists on the history of the South, the Afro-American, and education. Recent works make it very clear that articulate freed men and women favored education for themselves and their children. So, too, these same writings show how Yankee school teachers, northern missionary societies, and the Freedmen's Bureau brought schooling to the ex-slaves. "From 1865 to 1870," according to the standard history of the Freedmen's Bureau, "the Freedmen's Bureau and the [northern] benevolent societies worked together to help Negroes attain the schooling they so much desired." This was not a new interpretation. Months before the Freedmen's Bureau started its work, former Virginia slave children attending a contraband camp school near the nation's capital sang "Uncle Sam's School," a song that fed popular misconceptions later sanctified as historical fact:

> So come bring your books and slates,
> And don't [you] be a fool, --
> For Uncle Sam is rich enough
> To send us all to school.

A vast quantity of historical evidence contradicts explanations which attribute the schooling of ex-slaves either to Uncle Sam, to northern benevolent societies, or to a combination of the two.

Significant self-activity among the ex-slaves -- class self-activity informed by an ethic of mutuality -- also brought schools to the children of freed men and women.

Self-activity among the ex-slaves went unnoticed for many reasons. We leave aside racial reasons and focus instead on the rhetoric and beliefs of middle-class Yankee reformers anxious to integrate the liberated slaves into the new bourgeois civic order. That ideology, not surprisingly, shared much in common with the ideology associated with antebellum Yankee educational reform. The nearly exclusive attention historians later gave to it smothered evidence of ex-slave self-activity. The ideology deserves brief notice here: ex-slaves heard it all the time from Yankee benefactors. Schooling, the argument went, was essential because enslavement had systematically denied Afro-Americans access to the rules of civil society. The ex-slaves needed exposure to those rules in order to conform to them. Individual success rested on such conformity. In speeches and pamphlets meant to spread such rules among the ex-slaves, Clinton B. Fisk and Mansfield French vividly illustrated the marriage between evangelical Protestantism and free market capitalism. Fisk headed the Kentucky and Tennessee Freedmen's Bureau, and French played a lesser but nevertheless very significant role among the wartime and early postwar South Carolina and other Atlantic coastal blacks.

Our interest in Fisk focuses upon his seventy-two page pamphlet Plain Counsels for Freedmen in Sixteen Brief Lectures. The American Tract Society's decision to publish it delighted Fisk. He had earlier given these talks and believed them "useful in quieting discontentment" among Kentucky and Tennessee freedmen. So did O.O.

Howard, who sent copies o e Mississippi Freedmen's Bureau with instructions that Plainusels be circulated and "read to plantation negroes." The palet was either sold at a low price or given away. Bound inreen cover, Plain Counsels gave the appearance of a bank det book. Its message was similar to a poem printed in the al bank deposit book prepared by the Freedmen's Bureau for ex-s:

> 'Tis littleittle the bee fills her cell;
> And little ttle a man sinks a well....
> 'Tis littleittle an ant gets her store;
> Every littladd to a little makes more;
> Step by stewalk miles, and we sew stitch by stitch;
> Word by worread books; cent by cent we grow rich.

A belief that the ves knew little if anything about the rules of civil society ed every page in Fisk's pamphlet. Their particular histordenied them any such awareness. Legal freedom therefore reqsimple instructions about these rules. The arguments and evillustrations in Plain Counsels could have been published wttle change in early nineteenth century England. (Like ward Philbrick, who dominated Civil War economic life among the and blacks, believed the ex-slaves "as ignorant of socs as they are of the alphabet." He pressed for their tranion from "a degraded and half-civilized race" into "an indusand useful laboring class" and defended his decision denya Island black the right to purchase fishing tackle:

> I doneve it will do him any good to spend his time a-fit has a sort of excitement, like gold-digging, whic a man for steady, plodding industry....Now the presnd for fish will not be permanent. After the warroes will have to fall back upon field-labor for, and it will be better for them if in the meay do not acquire a distaste for steady labor andant habits.

Once it appeared that Philbrick lived in England in the 1790s, not in Civil War South Carolina. He ordered that a steam cotton gin be put "in order" to serve "as a moral stimulus to keep the people at work at their hand-gins, for they want to gin all the cotton by hand, and I tell them if they don't by the middle of January I shall gin it by steam.")

Fisk and others like him descended directly from British moralists like Hannah More who had preached and propagandized to "modernize" the new British working-class by convincing it that Time-Thrift and Contracts had Godly sanction. The pamphlet's illustrations explained to illiterate ex-slaves what could not be read. The black Paul Thrifty decorated the frontispiece. He dug the ground with a shovel. A small child watched him with awe. Paul Thrifty's cabin was neat and well-appointed. An inside page illustration showed a three-generation black family seated in its living room, a fireplace decorated with two busts, a painting on the wall, and an interested cat watching a grandfather read to attentive children. Paul Thrifty had his ex-slaves adversaries, Dick Slack among them. Seated near a shabby cabin, Dick Slack wasted time talking with a dog. Peter Puff and Betty Simple shared injurous habits with him. They danced, "hopping around the ballroom like a monkey." The three would have fit neatly into Henry Ward Beecher's Norwood, a contemporary novel in which the Yankee divine sympathetically portrayed the black Pete Sawmill but only to illustrate what Beecher called "the venatorial instinct." "There is," Beecher believed, "a political economy of the woods and fields as well as of the cities and towns -- an animal economy as well as a civic economy. Men utterly devoid of the knowledge of property, production, wages, rents, and values of any kind have a clear insight of squirrels, foxes, marmots, fish, and birds in all their varieties."

Fisk instructed the ex-slaves about the "civic economy." Paul Thrifty served as his implicit model. In detailing the "do's" and "don't's" necessary for individual worldly success by the black poor, Fisk explained: "White men are very much influenced by a man's success in making a good living...They make very polite bows to Frank P. and Mr. S. because they have money in the bank." Concise maxims dotted Plain Counsels: "A leak in the kitchen will drain good fortunes," "Earn money and save it. Do not spend it at suppers, parties, and dances." Commercial metaphors sustained God's will outside the marketplace. Marriage was "a partnership -- sanctioned by heaven, cemented by love." "Listen," the enthused Fisk wrote, "the very first verse of the Holy Bible tells us that God is a worker -- that in six days he made all this great world on which we dwell, and the sun and moon and stars. All the holy angels in heaven are very busy." Fisk gave the oldest story a new meaning:

> Why, when God placed Adam and Eve in the garden of Eden, before either of them had ever done a wrong thing, and while they were as pure as the angels, he made gardeners of them. He required them to dress the garden and keep it nice and in good condition.

Contracts deserved special attention:

> You have all heard a great deal about contracts, have you not, since you have been free? A contract is something which binds two or more parties....John Doe agrees to give Richard Roe fifty dollars for a month's work. That is a contract for labor; and, if Richard Roe performs the labor, John Doe must pay him. Contracts are very numerous; numerous as the leaves on the trees almost...

"The world," Fisk admonished, "could not get along without them."

Perhaps unconsciously but nevertheless significantly, others than the ex-slaves surfaced in Fisk's lectures. That became clear in his admonitions concerning Time-Thrift:

> You can not afford to smoke fine cigars. I say nothing of the wrong, but of the cost....You can not afford to spend money for useless dress and ornaments. You need tools, horses, plows, books, lands, education, -- everything before costly rings, watch-chains, and expensive apparel. Dress well, but in cheap, plain apparel.... You can not afford to be idle. Time is money. Every day you lose sets you back two or three days. You have no time to spend in kicking up your heels. I speak of time, not of the right or wrong of dancing....Idleness.....is the most common and the most culpable cause of dishonesty.

The ex-slaves served Fisk as surrogates for the mid-nineteenth century urban white poor. Enslaved Afro-Americans had more than their share of lower-class vices but did not smoke cigars and purchase watch-chains. In his hints to ex-slave husbands, Fisk again illustrated his confusion:

> Husbands must provide for their families....Your wives will not love you if you do not provide bread and clothes for them. They can not be made happy and greet you with a kiss, when you come home, if they are hungry, ragged, and cold. Your children will not run up to meet you, dance before you, and climb upon your knees, and call you "papa," if you make beggars of them....
>
> Some men have a way of going to saloons, shows, groceries, concerts, and theaters, and leaving their wives and children night after night alone. This is mean and bad. It disheartens a wife, makes children unhappy, and demoralizes husbands....

Just what plantation blacks could be expected to make of such advice escapes understanding. Shows, concerts, theaters, and saloons were just as alien to rural southern Afro-American culture as fine cigars and costly rings. Fisk had done much more than idealize northern middle-class family sociability and warmth. He had confused the ex-slaves with the urban white poor and caricatured the beliefs and behavior of both groups.

Mansfield French and Clinton Fisk served the Union Army and the Freedmen's Bureau in different parts of the South but shared common beliefs about the slave's past and the ex-slave's future. His Address to Masters and Freedmen, delivered "at several points in the Southern States" and published in Macon, Georgia, in 1865, summed up French's prescription to restore the ex-slaves to civic health. He emphasized the Chastity Ideal which subordinated sexual intercourse in marriage. "The marriage relation among you," said French, "must be as sacred as among the whites." Every woman wanted "a good husband and a good home." But the ex-slave wife had to "try to be worthy" of her husband's love: "Be more loving and agreeable than any other woman can be, then he will not seek the company of any other woman. Men love quiet, tidy, happy homes, and smiling, loving wives."

French's prescription for black health mixed the Chastity Ideal with a huge dose of free market medicine. Justifying federal unwillingness to distribute land to them, French told the ex-slaves: "All that is left to your masters are their plantations and their manly character....Some of you may think Providence has dealt more generously with them than with you. But look at it again." The Civil War had cost the planters their sons, their money, and "all their negroes."

> The Government....leaves the land and stock with your masters, while to you it gives simply your freedom. This seems to place you out in the cold; but be not discouraged. The Government has really complimented you in this. It has faith in you, too.

How the "old hen" managed with "her family" had much to teach the ex-slaves. After the "little chicks" learned how to "scratch" from her, the old hen "takes a last look at them, and off she runs, clucking as she goes, 'Now, little chicks, scratch or die!' Did you ever see a little chick that did not scratch a living?" French compared the federal government to the old hen. The authorities promised to help the ex-slaves until they could "take care" of themselves. Then "Uncle Sam will say to all his black children, Now scratch or die."

Emancipation tested the old slaves in new ways:

> Freedom allows you to work, allows you to play, and allows you to starve if you wish....In view of the shortness of the crops, and the difficulty of getting new places for work, it is better, far better, that you remain with your former masters even though you get only food and clothing.

Old owners who failed to realize the advantages of free labor would soon learn otherwise. French explained by mixing marketplace metaphors with paternalist pieties:

> In the trial of free labor, they will find it so much better, attended with so much less care, and trouble, that they will rejoice that they have got rid of you. I am sure I should, if I had been bothered with such a lazy set -- as you were in slavery -- of woolly thick heads. And I must say a good word for you, too. I think you will be equally glad to have got rid of your old masters. Now you are all on probation, on your good behavior....

It was as if children had been let free after school hours or, better still, as if a Massachusetts governor had paroled a criminal imprisoned for life.

Mansfield French and Clinton B. Fisk retain a commanding importance because their world-view is essential to understanding the successes and the failures associated with public and private educational policies meant to elevate the ex-slave. The two typified the outlook of mainstream Yankee evangels and entrepreneurs pressing to uplift the freed population by individualizing it. Others joined them in mixing the countingroom with the chancel. The nation's leading evangelical weekly, the New York Independent, supported schooling by comparing the Southern ex-slaves to Northern European immigrants ("successive cargoes of ignorance and vice") in language that better belonged in the Commercial and Financial Chronicle. Schooling had prevented the immigrant poor from sinking the nation "below the reach of the plummet." The former slaves ("a mass of ignorance") also were "a peril to the Republic." Fisk described marriage as a "partnership," and the Independent called the public schools "our machinery for lifting up the masses. We have pitched them as so much raw material into the mill of our public-schools, and worked them up into good citizens."**

Not surprisingly, some enthusiastic Yankee evangels viewed the New South as an imperial extension of the New North. Schooling the Independent insisted, would bring more to the South than "quiet order and decorous behavior" and "greener fields of corn and more snowy crops of cotton." Educated ex-slaves promised to consume more manufactured goods than illiterate freed men. The Independent advised: "The most we Yankees can do to insure to our tills the profits of this trade is to hasten on the work of education." It reminded dollar-conscious readers:

> England, at great cost of treasure and life, compasses the sea and land with her navies and armies to establish a colony which will buy its goods of Manchester and Birmingham; we, at a cost not worth mentioning, and with a light-brigade of school-mistresses, can organize at our own doors a colony -- so to speak -- that will be worth more to us than any of England's most flourishing dependencies.

** The metaphors used by the Independent remained fashionable in later decades. "Our schools," the influential professional educator Ellwood B. Cubberly insisted in Public School Administration (1916), "are, in a sense, factories in which the raw products (children) are to be shaped and fashioned into products to meet the various demands of life."

God and Mammon worked well together. "Verily," prophesied the Independent, "godliness has the promise of the life that now is, as well as that which is to come; and verily this promise is often redeemed in federal currency." Such a world-view prepares us for the answer given by the National Freedman's Relief Assocation of New York (later incorporated into the important American Freedmen's Union Commission) to critics who complained in 1865-1866 that it did not employ black teachers. Whites had better training and carried more to the South than "their education":

> They carry their race, their moral training, their faculty, their character, the influences of civilization, the ideas, sentiments, principles, that characterize Northern society, and which we hope will one day characterize Southern (society). We want to introduce persons as well as pedagogues, and persons will be worth all they cost....We want, not schools merely, but Northern schools, Northern men and women, down South, teaching, mingling with the people, and instituting the North there among the old populations. In this way we civilize all at once, by communicating simultaneously all the chief intellectual elements of civilization.

So imperial a mission only left place for the ex-slaves to "establish schools of their own, officer them, supporthem, take the whole charge of them. The quicker they do this the better."

Such beliefs, of course, did not mean that their professors had conspiratorially married Christianity to Capitalism to deceive and then fleece the liberated slaves. Instead, they unfolded an honestly and deeply believed world-view that had reconciled an increasingly narrow conception of Christian benevolence with economic liberalism and the capitalist work ethic. A Philadelphian visiting the Sea Islands in 1866 summed up the enthusiasm often associated with that world-view: "A barbarous race living in our midst, awakened by a consciousness of their own degradation, crying out to us for help. What is China or India to this?"

Mansfield French's insistence that the ex-slaves had to "scratch or die" may have been phrased inelegently, but his advice rested on the belief that the compulsion associated with chattel slavery would -- and had to be -- replaced by the compulsion associated with the free market. That was progress. Others like Horace Greeley developed the same point. In a celebrated New York Tribune editorial published on May 25, 1865 and entitled "Root, Hog, or Die," Greeley explained:

> Freedom and opportunity -- these are all that the best Government can secure to White or Black. Give every man a chance, and let his behavior control his fate. If negroes will not work, they must starve or steal; and if they steal, they must be shut up like other thieves. If there be any among them who fancy that they, being free, can live in comfort without work, they have entered a school in which they will certainly and speedily be taught better.

Once "the wreck of slavery" had been cleared away, the federal government would "break up our Freedmen's Bureaus and all manner of coddling devices and let the negroes take care of themselves."**

**See the New York Times, August 17, 1891, for evidence that the phrase "root, hog, or die" had not died out. That summer, protesting Eastern European Jewish immigrants complained that farm land promised in New Jersey had been denied them. Instead, they had been made to labor on sewing machines. Those who protested about the "nature of work" or the "quality of bread," said the Times "ought to be told, 'Root, hog, or die'." The Times insisted that the Jewish complaints were reason to restrict immigration.

* * 4 * *

Fisk, French, and Greeley favored educating the ex-slaves in order to integrate them as free workers in the new bourgeois civic order. Men like them dominated northern benevolent societies and the Freedmen's Bureau. Before the start of Radical Reconstruction, ex-slaves and other southern blacks seeking schooling often received assistance from these agencies and the Bureau. But initiative also rested with the blacks themselves, and the means by which they built and sustained new schools rested on beliefs that differed from the values cherished by bourgeois utopians like Fisk, French, and Greeley. The importance of such activities is examined in two southern places -- Alexandria, Virginia, during the Civil War and northeastern South Carolina in 1866 and 1867.

Overall public and private policies affecting the education of ex-slaves deserve brief notice. Except for Florida where the legislature imposed a special education tax on Negroes (it was not well collected), no southern state made provision to educate the former slaves. The federal Congress offered the ex-slaves little help at the start. In establishing the Freedmen's Bureau, Congress did not include funds for education in 1865, and direct appropriations (as opposed to indirect aid from the sale of confiscated properties and crops) did not come until the summer of 1866 when Congress authorized the Bureau to spend half a million dollars for the rental, construction, and repair of schoolhouses. Some additional money for the education of former slaves came from remaining wartime dollars that certain northern states had sent to the Union Army in the south to purchase black substitutes and thereby help fill northern draft quotas. Bureau policies and a shortage of funds encouraged self-activity among the former slaves. And most Yankee northern benevolent societies, not surprisingly, also spurred self-effort among them. Theirs were not ventures in charity. The New England Freedmen's Aid Society, for example, had as its policy that monies would go to ex-slaves only if they first erected, repaired, and cared for schools, furnished board for teachers, and paid small tuition fees. Edward Everett Hale explained the guiding assumptions shared by many who managed northern benevolent societies: "The policy...has not been to make these people beggars. '*Aide-toi et Dieu t'aidera*' is their motto. The black people know they must support themselves, as they have always done." Hale calmed those worried that benevolence promised dependence and regimentation. Such persons revealed "a general forgetfulness of the operation of the law of supply and demand under the regime of freedom." He explained:

> Freedom is not bread and butter, it is not comfort, it is not houses and clothes, it is not a happy life, it is not a certain heaven. Some enthusiasts, seeing that the newly freed slaves do not yet possess these blessings seem disturbed, as if Freedom were not secure. But freedom is simply the way to get these blessings. It is the right of choice by which the freeman selects one or another course, which he thinks best adapted to secure them. That is what the proclamation of freedom secured.

Such policies assured "suffering," but Hale added, "Where is there not suffering in this world? We have never said that the black man's life should be raised above suffering. We have said that he should be free to choose between inevitable hardships. This promise we perform."

Policies fixed by men sharing Hale's outlook made it clear that the ex-slaves had to rely mostly on their own capacities in reconstructing their lives. And the behavior of wartime "contraband" men and women in and near Alexandria, Virginia, indicates how an ethic of mutuality informed many such efforts. Their early condition was deplorable. Between mid-June and early December of 1862, 3354 contrabands passed through the Alexandria camp. A visit among them by New York Quakers in October 1862 revealed that sometimes as many as ten or twelve persons were quartered in rooms no more than twelve feet square. The runaway North Carolina ex-slave Harriet Jacobs noticed that the "little children pine like prison birds for their native element." Smallpox ravaged the refugees that first winter. D.B. Nichols, the Superintendent of Contrabands, distressed the refugees. He allowed several dead blacks to be buried in a "box," angering resident runaways who had a "great respect for the dead." A District of Columbia black said the contrabands believed Nichols "better suited to be an overseer of a Southern plantation."

But the condition of the Alexandria refugees improved and largely because their own individual and collective efforts. In the 1863-1864 fall and winter months, they built several hundred one and two room cabins (ranging in value from forty to one hundred dollars) for themselves. They paid an annual ground rent. Government teamsters among them had five dollars taken from each monthly wage payment for "public" support of disabled refugees and helpless women and children. About seven thousand refugees lived there in August 1864; twenty-five received public assistance. "Hundreds...in the last twelve months," said an army physician among them, "built houses of their own, and paid every dollar for them, besides supporting their families." About one thousand houses had been built by the refugees. "All they need," the physician concluded, "is protection, plenty of work at a fair price, and punctual payment."

Schools started quickly among the Alexandria refugees. "The first demand of these fugitives when they come into a place," observed a reporter, "is that their children may go to school. Another surprising fact is that the poor negro women had rather toil, earn, and pay one dollar a month for their children's education than permit them to enter a charity school." A white teacher did not work with the Alexandria contrabands until October 1862. By that time, blacks managed three other schools. Before the war's end, at least sixteen other blacks taught in or ran Alexandria schools. In April 1863, about four hundred children attended such shools. The total contraband population than numbered about two thousand. One school started in a former "slave pen." Another (a "self-sustaining" school with about 150 pupils) was housed in a building put up as a Lancastrian school at the bequest of George Washington and meant to be "forever free to the poor of the city."

Harriet Jacobs and her daughter Linda started Alexandria's most important contraband school. New York Quakers had sent the two former North Carolina slaves there in 1862 to conduct relief work. When she left in the fall of 1863, Alexandria contrabands had agreed to build a school house, but on her return a few weeks later they had not yet finished it. "Their funds got exhausted," Jacobs reported, "and the work was at a standstill." But she and her daughter (later aided by the daughter of a prominent Boston black caterer) started a school. Jacobs reported: "One of the freedmen whose cabin consisted of two rooms, gave it to us for our school." The place proved too small. Jacobs held "a little Fair" and raised $150 in building funds. By October 1864, Alexandria blacks had spent $700 from their earnings to support the school. Jacobs raised another $300 in donations from friends. The contrabands did more than give money. Their voluntary labor built a school house worth about $500.

Sometime in 1864, the blacks enlarged the building. It was now sixty feet long and twenty-eight feet wide and "well-lathed and plastered." At its start, a bitter dispute threatened the school's future. Jacobs described it:

> A question arose whether the white teachers or the colored teachers should be the superintendents. The freedmen had built this schoolhouse for the children, and were Trustees of the school. So after some discussion it was decided that it would be best for them to hold a meeting, and settle the question for themselves. I wish you could have been at that meeting. Most of the people were slaves, until quite recently, but they talked sensibly, and I assure you they put the question to a vote in quite parliamentary style. The result was that the colored teachers should have charge of the school.

The school opened in January 1864 with seventy-five pupils; two months later it had 225 pupils. By August 1864, it was "the largest school and schoolhouse in the city."

That the Alexandria contrabands were not unusual in their beliefs and behavior is learned by comparing them to rural ex-slaves living in northwestern South Carolina, a rich cotton-producing region that was home to about one hundred thousand blacks, nearly a third of the state's former slave population. Benjamin Franklin Whittemore, a Massachusetts resident, an Amherst College graduate, a Methodist clergyman, and a former Union army chaplain, supervised education there for the Freedmen's Bureau between 1865 and 1867 before entering Republican state politics. After he toured the region in January 1866, he pleaded for outside help: "The negroes are willing to deny themselves and do all they can to obtain knowledge, but they can not do much." The Freedmen's Bureau, moreover, was powerless "in many particulars, inoperative because of its poverty," and very much in need of Congressional monies. A year later, Whittemore remembered the region in early 1866 as "a wilderness in every particular." Nearly all blacks there farmed, and on January 1, 1866 they celebrated Emancipation Day by "besieging" Bureau headquarters to complain about poorly drawn contracts that defrauded them and about inadequate food supplies. Such behavior spread fear of insurrection, and Bureau officers worked hard to arrange settlements with white employers. "Mutual dependence," Whittemore worried, had to be "taught, felt, and acknowledged." Afterwards, store orders remained common and cash payments few. A crop failure in 1866 -- just one third of the normal crop was harvested -- caused even worse troubles. In June 1867, Darlington ex-slaves addressed Boston's Mayor: "We are on the eve of Starvation. We have no way in God's world to get provisions. Only through our Friends North.... If there is any chance in the world to get anything to eat in your city, do for Heavens Sake Send us some and save us from Perishing."

Despite their increasingly difficult economic circumstance and some local white opposition to schooling for their children ("'philanthropic or puritanic' institutions for 'niggers'"), ex-slaves over the entire region contributed significantly to their children's education. An ethic of mutuality similar to that among the Arlington blacks shaped their behavior. They moved an old "Confederate building" ten miles from Florence to Darlington to start the district's first school. By April 1866, six schools existed and a month later eleven. Northern soldiers had burned a Marion school house so its teacher met classes in the woods where blacks had put together a makeshift school. In Sumpter, blacks first built "a rude shelter in the yard of a Mr. Williams, one of the most enterprising of its colored citizens." Summerville got its school some time before July. Two white women offered two acres of land for $200 as school property. Local blacks, many among them poor and destitute, crowded an army barracks used as their church to agree that if the northern societies paid for the land and the government supplied lumber they would built a school to open in October. Dan Meyers, "a good carpenter," spoke first: "I is a plain man and alers does what I agree, and I say that I will stan' by the good work till it's done finished." The next speaker added: "I is called a good carpenter; I has no children of my own to send to the school; but I want to see the house built, and I gives two weeks for it." Others offered labor, and some, including young boys, gave small sums of money. In all, the blacks raised sixty dollars and pledged twelve weeks of labor. "The women," said the school teacher Esther Hawkes, did "their part," too, "offering to board or lodge the workmen as they best could." "These destitute people," Hawkes mused, "living, some of them, in rude huts made of mud and palmetto, one might suppose that all their interest was necessary [just] to keep them from starving...."

Schooling made significant progress among these upcountry South Carolina blacks by the fall of 1866. Whittemore pleaded with the American Freedmen's Union Commission in late September: "I am at present wanting eight teachers, where schools of over sixty pupils each are awaiting them....The parents are begging me to send them the 'school teacher'." The demand for teachers had outrun the supply for good reason. The burned Marion school had been rebuilt ($200); Darlington blacks gave their labor and money for a school ($500); Simmonsville ex-slaves ditched and fenced and then built a home for the teacher ($150); Sumter blacks moved a building forty miles and then reconstructed it ($250). Lynchburg ex-slaves also moved and fixed up a building ($150). So did Florence blacks ($350). In Camden, ex-slave muscle and money meant a new schoolhouse ($800), and the rental of an old building for thirty dollars a month. Schoolhouses also went up on the Mulberry Plantation ($100) and in Springville ($100). Kingstree blacks spent $600, and in Snow Hill they fashioned a log house and then a separate abode for the teacher. Boykin plantation blacks lacked ready cash, but ninety-four formed an Association to sustain their school. Society Hill blacks constructed "a fine commodious school house " valued at between five and six hundred dollars. Cheraw freedmen, who had permission from local whites to use the town hall for educational meetings, promised to pay rent regularly, and in Bennettsville they agreed to move and reconstruct a distant building for their children. The schools varied in size: that in Timonville was 14 x 24 feet, in Florence 35 x 45, and in Darlington 30 x 72. Overall, Whittemore figured that each community had expended an average of $320 by October 1866.

More than cash sustained the new schools. In Camden, for example, most Negroes worked crops on contract and saw no cash until they had gathered the full crop. Teachers there did not suffer discomfort. "They furnish us with beds, bedding, and furniture for our rooms free, though they do not pay the rent," said a male teacher. "They sell articles to teachers at under price, and bring in gratuitously articles of food. The girls at the night school have made me some presents." "There is no lack of 'a disposition to do all in their power *now*'," felt Whittemore of these people in October 1866. "Indeed I think they *have* done it." Between September 1, 1866 and January 31, 1867, Camden Negroes raised $120 to pay school rent, heat the school building, and furnish the dwellings of schoolteachers. "They have performed *all they have promised,*" reported Jane Smith from Sumter: "They were to pay a certain sum toward the erection of their church which they have done. They were to whitewash it, to buy a bell, build a belfrey, furnish lamps, lumber for the pulpit, and several comforts for the teacher. All this, *they have done*." "They half supply our table now," Smith went on, adding, "They are very poor this winter." Whittemore summed up the year's work in January 1867. Twenty-two schools had been set up, and over four thousand children instructed. The blacks owned, unencumbered, more than $12,000 worth of church and school properties, "two-thirds of which" had been "secured by their own industry, skill, and collections."

Much more than either Yankee benevolence or federal largesse made the schoolhouse a reality among former northeastern South Carolina slaves in 1866 and 1867. Communal values and sanctions shaped the activities of ex-slaves there. "He who makes himself prominent in opposing the establishment of a school," noticed Whittemore, "is looked upon as an enemy to the *race*, and worthy of suspicion, or 'to be let alone' when contracting is called for." The success of such community sanctions depended on shared values. Nevertheless collective effort required work by individual persons. We have the example of Julia Bird, the sole supporter of her eight children. The Snow Hill schoolhouse had been built without a chimney. One was added, but inferior labor had made it useless without repairs. Others declined to repair it; then Julia Bird volunteered. She and four of her children spent a full Saturday fixing the chimney. "She dug the clay," said a teacher, "and with her own hands mixed the mortar, and repaired the chimney so perfectly that it has worked like a charm ever since....Said she didn't want the school to stop a day."

* * 5 * *

What happened in Alexandria, Virginia, before 1865 and in northeastern South Carolina in 1866 and 1867 occurred elsewhere in the liberated South. Significant numbers of ex-slave men and women built and sustained schools in similar ways. Their behavior often rested upon an ethic of mutuality rooted in a distinctive class experiences as enslaved men and women. Not all ex-slave men and women, to be sure, shared the conception of obligation associated with that ethic. But enough did so that behavior based upon it surfaced over the entire South before 1868. Some of the larger consequences of such behavior can be teased out of John Alvord's published semi-annual reports on the Freedmen's Bureau and its educational policies and programs. (Alvord supervised these programs.) Data published in these reports show that only Louisiana and Delaware antebellum free blacks attended Freedmen's Bureau supported schools out of proportion to their place in the 1860 black population. In most states, antebellum free blacks were only slightly over-represented in the 1866-1867 school population. Overall, about nine in ten young blacks attending school in 1866-1867 had been born slaves. Local attendance figures await careful scrutiny. A single comparison Alvord made between ex-slaves and whites suggests good reason for such study. According to Alvord, in the fall of 1865 41 percent of eligible white children and 75 percent of eligible black children attended District of Columbia schools. An equally high percentage of eligible black children attended schools in Memphis and in rural and urban Virginia that fall. Bureau head O.O. Howard, moreover, later insisted that nearly one-third of all ex-slave children has some schooling between 1865 and 1867.

Not all ex-slave children learned literacy from white Yankee school teachers. Black teachers were common in 1866-1867 and scattered over the entire South. Except for Alabama, Arkansas, the District of Columbia, and Mississippi, they counted significantly as a percentage of all teachers among the ex-slaves. In December 1866, 37 percent of southern teachers working among blacks and known to the Bureau were themselves black. Six months later, 41 percent of such teachers were black, and the absolute number of black teachers had increased by 70 percent. (Table One) These are minimal estimates because Alvord failed to include teachers (nearly all of them blacks) laboring in many "irregular schools," and black men and women teaching literacy (and skill) outside the school room.

TABLE ONE

Black Teachers in Southern Schools, 1866-1867

	December 1866		June 1867	
State	Number of Teachers	Per Cent Black	Number of Teachers	Per Cent Black
District of Col.	126	19%	198	13%
Maryland	99	59%	103	73%
Delaware	n.g.	n.g.	20	80%
Virginia	238	30%	295	33%
North Carolina	146	24%	227	39%
South Carolina	215	48%	229	39%
Georgia	138	49%	239	38%
Florida	41	81%	64	50%
Alabama	69	17%	150	16%
Mississippi	59	17%	99	19%
Louisiana	122	16%	294	52%
Texas	45	42%	98	41%
Arkansas	24	13%	40	18%
Tennessee	123	25%	154	28%
Kentucky	96	87%	134	73%
TOTAL	1541	37%	2434	41%

Ex-slaves did much more than send their children to school between 1865 and 1867. Their labors and their monies helped make these schools possible, facts which historians of Afro-America, the American working-class, and American education have not yet fully comprehended. Maryland and Mobile ex-slaves illustrates the importance of such involvement. Wealthy white Baltimore Union Republicans and Quakers founded the Baltimore Association for the Moral and Educational Improvement of the Colored People in 1864, but funds to sustain its efforts came primarily from rural and urban Maryland blacks in 1866-1867. That year, 60 percent of voluntary contributions came from Maryland persons of color. (Table Two) The first Mobile black school opened in May 1865 in the Alabama city's bankrupted medical college. Its trustees agreed to rent the place to blacks if they put on a new roof ($2000) and winterized the facilities ($1000). Josiah Nott, the renowned Mobile physician, protested the rental directly to O.O. Howard, insisting he would "rather see the building burned to the ground than used for any such purpose," and a Mobile black told New Orleans Tribune readers that others

TABLE TWO

Contributions to the Baltimore Association for the Moral and Educational Improvement of the Colored People, 1866-1867.

Northern Relief Societies	$10,432
Irish and English Quaker Societies	1,144
Citizens' contributions	3,305
Colored Citizens -- Baltimore	3,862
Colored Citizens -- Counties	15,328
Sale of Books to Colored Students	4,180
Total Voluntary Contributions	$38,25
City of Baltimore	$20,000

threatened to burn the building with "all the little 'niggers' in it." Such threats did not deter Mobile blacks. An early meeting called by white teachers brought from them promises of $327.50 as well as $94.50 in actual cash. By August 1,1865, Mobile blacks had "collected upwards of $5000 for their own eleemonsynary institutions," including the schools. "The colored people are working nobly," said a teacher, "doing all we can...ask of them." The precise sources of these monies remain unknown, but unless resident whites helped out much of it had to come from former slaves. That is so because in 1860 Mobile's free black population included only 208 adult men between the ages of 20 and 49, all but a handful of them artisans and common laborers.

Neither Maryland's nor Mobile's ex-slaves were unusual men and women. John Alvord's 1866 and 1867 reports show why. In the fall of 1866, parents and other local blacks sustained in full or part the operation of at least half of the Arkansas, Florida, Georgia, Kentucky, Louisiana, Maryland, and Texas schools. In five states (Alabama, North Carolina, South Carolina, Tennessee, and Virginia), between 25 and 49 per cent of the schools received financial support from resident blacks. Six months later, at least half of the schools in ten southern states received assistance from black parents and in six states (Arkansas, Delaware, Kentucky, Louisiana, Mississippi, and Texas), at least three of every four schools were financed partially in this way (Table 3)

TABLE THREE

Schools Sustained Entirely or in Part by Freed Men and Women
December 1866 and June 1867

State	December 1866 Number of Day and Evening Schools	December 1866 Per Cent Sustained In Part or in Full by Freedmen	June 1867 Number of Day and Evening Schools	June 1867 Per Cent Sustained In Part or in Full by Freedmen
District of Columbia	94	14%	122	36%
Delaware	n.g	n.g	20	100%
Maryland	98	60%	107	71%
Virginia	192	27%	229	32%
North Carolina	118	36%	147	48%
South Carolina	69	33%	90	42%
Georgia	127	76%	236	64%
Alabama	51	41%	175	19%
Florida	60	50%	56	59%
Mississippi	43	7%	66	79%
Louisiana	111	100%	246	85%
Texas	34	100%	55	120%
Arkansas	12	100%	24	92%
Tennessee	105	34%	128	53%
Kentucky	67	97%	96	92%
TOTAL				

(This percentage indicates typographical error in the printed report.

Other data allow for a comparison between what blacks paid for tuition and the monies expended by the Freedmen's Bureau between January 1 and June 30, 1867. (Table Four) In two states (Alabama and Florida), blacks paid in less than twenty-five dollars for every one hundred dollars spent by the Bureau, but in seven states (Arkansas, Maryland-Delaware, Mississippi, North Carolina, South Carolina, Texas, and Virginia) tuition payments ranged between $25.00 and $49.99 for every one hundred dollars of federal money. Tennessee blacks paid in $59 and Georgia blacks $77. In two states, Kentucky ($131) and Louisiana ($179), blacks put more money into the schools than the Bureau. These estimates, of course, do not take into account the value of contributions in kind and of free voluntary labor.

TABLE FOUR

Expenditurers for Education by the Freedmen's Bureau and by Resident Blacks, January 1 - June 30, 1867

State	Tuition Paid by Blacks	Freedmen's Bureau Expenses for Construction, Rental, Teacher Transportation	Tuition Paid by Blacks for Every $100 Spent by Freedmen's Bureau
Maryland-Delaware	$ 5800	$13594	$43
Virginia	5125	19198	27
North Carolina	1761	5526	32
South Carolina	8000	22551	35
Georgia	17224	22306	77
Alabama	1543	2868	5
Florida	304	4815	6
Mississippi	2020	4787	42
Louisiana	25734	14391	179
Arkansas	2308	8078	29
Texas	2472	9790	25
Kentucky	7107	5413	131
Tennessee	7814	13208	59

**Tuition payments by blacks from both states included in the $5800, but we have only the Bureau expenditures for Maryland.

Neither does an 1894 estimate that the freed population spent $785,000 to school its children in the five years starting in 1866. More recently, historian Henry Allan Bulloch figured that southern blacks paid $672,989 in school taxes and tuition and that black church organizations put another half a million dollars into educating ex-slaves and their children. Detailed local studies promise to refine these estimates. They nevertheless remain a useful measure of the unparalleled educational energies expended by ex-slaves and can be contrasted to the $5,145,124 spent by the Freedmen's Bureau and to the monies collected by white religious and benevolent societies (some of which came from Western European sources, significant numbers of workers counting among the Europeans who contributed aid to former Afro-American slaves).

* * 6 * *

"Self-activity" is a metaphor for lower-class behavior of all sorts. This brief examination of the relationship between self-activity, an ethic of mutuality, and schooling among ex-slaves before 1868 returns us to some of the general historical processes and questions that concern working-class historians. At issue, of course, are the changing determinants of working-class and lower-class belief and behavior. Paraphrasing Jean-Paul Sartre, the anthropologist Sidney W. Mintz writes, "The mystery of the human conditon is not what man has but what he does with what he has..." In examing how men and women fresh to legal freedom built and sustained schools, we begin to penetrate that mystery. Their expenditure of cash, time, and labor in voluntary and collective efforts (behavior surely incomprehensible to contemporaries like Clinton Fisk, Mansfield French, and Horace Greeley) casts doubt on even the most sophisticated reactive models used to explain the behavior of subordinate groups and classes (slaves among them). Even if paternalist ideology "mediated" the relations between owners and slaves, for example, it is hard to believe that paternalist owners socialized slave men and women to engage in the voluntary efforts detailed in these pages. Unless we attribute adaptive qualities to Afro-Americans absent in all other groups, moreover, it defies historical logic to suggest that ordinary slaves quit jails, hospitals, or vocational high schools (much less concentration camps) to enter classrooms. Sambo and Dinah were not likely to build schoolhouses. It is also mistaken to find in such behavior evidence that ex-slaves associated literacy with either individual achievement or upward mobility. Schooling surely meant self-improvement. The American middle-class owned a great deal, but it did not have a copyright on self-improvement. The ways in which so many ex-slaves built and sustained schools furthermore were alien to the mid-nineteenth century middle-class. Yankee shopkeepers and successful artisans favored education but did not move buildings ten miles and then reconstruct them. Ohio and Indiana farmers paid school taxes but did not stand guard over teachers threatened with violence. Ex-slave men (and sometimes women) did.

Attitudes toward work, religion, and family and kin that developed during slavery sustained notions of obligation and mutuality among many ex-slaves. Ex-slaves on the Georgia plantation Henry Lee Higginson leased in 1866 confused their Yankee employer: "They help each other in picking the different patches of cotton, as it opens. If they receive help for it, they return help, not money." Davis Tillison, who headed the Georgia Freedmen's Bureau that same year, reported, "I know of colored men who work hard all day and into the night, and who give one third of all they earn to the support of the poor of their own race. This I learn, not from their own lips, but from those of white neighbors." A perfectionist Afro-Christianity encouraged benevolence among such men and women. About 1600 destitute former North Carolina slaves lived at the Camp Trent refuge. Crop failures in 1867 meant that many picked cotton for between a quarter and a half a cent per pound. It was hard for individuals to make twenty-five cents a day. That fall between three and four hundred children attended a Camp Trent school. Adult refugees formed an educational society and paid ten cents to join it. The clergyman Amos York headed the group and quickly collected eight dollars. The following letter to a private northern relief agency accompanied the money:

> DEAR SIR we The members of the Educational Society auginized in Trent Settlement NC Do Forward to the Sociation Eight Dollars $8 to aide in Serporting our

> teacher Rev J W Burghduff. The amount is small But it is the Best we can Do under the Present Circumstancis we are a Poore and Destitute People and the times are wary harde But we feel willing to try to help our selves all we Can of such we hope the small amount will Be accepted
>
> Respectfuly yous
> AMOS YORK President
> SOUTHEY HUNTER Sect

"Please ancer this as sunde as it comes to hand Direct Box 121" "The amount is small, I know," admitted a missionary school teacher, "but we are very much like the widow spoken of in Luke xxi. 1-4. It is all we had."

Ex-slaves over the entire South shared beliefs with men like Amos Young. That happened because class obligation built upon kin obligation as well as Afro-Christian perfectionism. A meeting about their schools among St. Helena's Island, South Carolina, ex-slaves in 1868 indicated how some of these separate strands had come together. Hastings Garret spoke first and, according to the Yankee teacher Laura Towne, urged that "rich and poor... come forward at once and assist in support of the schools, each putting in according to his means." He asked Towne to speak, and she and another white teacher advised the blacks to rely less on outside financial aid and more on their own resources. The "elders and principal men" spoke, too, and promised to raise money and "contribute themselves as soon as they could." But cash was short then so Garret advised that they "set aside a piece of land, work it fruitfully, and devote all its produce to schools." Others spoke:

> Uncle Liah, who had previously spoken...said that they were all poor, and each could do but little, but this was a work for many. It may be as it was at Indian Hill, where the great burial-ground was raised by each Indian throwing just one handful of earth upon it every time he passed. Uncle Aleck said, Should each man regard only his own children, and forget all the others? Should they leave that poor neighbor widow with her whole gang of children, and give them no chance for a free schooling?

Such beliefs -- "each putting in according to his means," setting aside a piece of land for a commual purpose and all working it, and considering free schooling for the "poor neighbor widow's children" -- such beliefs had nothing to do with the moral paternalism of their former owners or of the Yankee missionaries and school teachers.

Reactive models cannot explain the beliefs and behavior of ex-slaves like Julia Bird, Hastings Garret, and Amos York. How, then, are the class beliefs and behavior found among such men and women best explained? The alternative to a reactive model is not a romantic one. We are instead directed to reexamining the relationship between class formation, class development, and changing patterns of class belief and behavior. By the 1860s, most Afro-American slaves were descended from a four-or-five generation class experience. Emancipation transformed an established and developed subordinate class, allowing ex-slave men and women to act on a variety of class beliefs that had developed but been constrained during several generations of enslavement. The origins of the beliefs ex-slaves acted upon before 1867 (including those "borrowed" from the mainstream culture) require study as do the particular ways in which slave class experiences over time sustained these beliefs. Static conceptions of either social class or the relationship between dominant and subordinate social classes prevent us from studying such processes. E.P. Thompson explains:

> Class is not, as some sociologists would have it, a static category -- so many people standing in relation to the means of production -- which can be measured in positivist or quantitative terms. Class, in the Marxist tradition, is (or ought to be) a historical category describing people in relationship over time, and [describing] the ways in which they become conscious of their relationships, separate, unite, enter into struggle, form institutions, and transmit values in class ways.

This perspective helps transcend the limitations of reactive and reductive models meant to explain the class experiences and behavior of all subordinate groups. It encourages the historian to recapture what Robert Bellah calls the historical "middle distance," or the "spaces" between the "individual" and "society." The restoration of that "middle distance" allows the working-class historian to examine the ever-present but changing tensions between individualism and mutualism that exists within all modern subordinate social classes, to see how alternate lower-class beliefs become either oppositional social movements or are incorporated into the dominant social system, and to focus on Jean-Paul Sartre's splendid definition of "the essential." "The essential,"Sartre,reminds us, "is not what 'one' has done to man but what man does with what 'one' has done to him."

* * 7 * *

Sartre's definition of the "essential," of course, is just as applicable to American workers in and outside of factories during the decades of rapid capitalist industrial development as it is to the ex-slaves transformed into free laborers. But unless we retain an interest only in "mobility rates" or only in strike narratives (both forms of self-activity), gilded age working-class self-activity requires studying earlier patterns of class formation and class development. The context into which evidence of self-activity is placed shapes the way in which historians tease larger meaning out of such behavior. And it is precisely that class context which remains absent from so much working-class and social history. Except in a few works like Dawley's, class development and class structure are often fuzzy and abstract, even excessively "theoretical." The absence of diachronic studies of a developing American class structure weakens more than our understanding of working-class self-activity over time. It also makes it difficult, if not nearly impossible, for historians interested in "education and work" to study that relationship over time.

A single example illustrates how little is yet known about nineteenth-century American working-class class formation and poses questions of great importance to working-class and educational historians. The data deal with the composition of selected working-class occupations in 1880 in two American cities: Cleveland, Ohio, and Paterson, New Jersey (Tables Five, Six, and Seven). A much larger city than Paterson, Cleveland was much younger as a center of heavy manufacturing. Just what these cities typified nationally awaits further work. But preliminary study indicates that what existed in the Cleveland and Paterson working-class in 1880 was found among manufacturing workers elsewhere except among New England workers.

The study of these occupations indicates two patterns essential to understanding working-class class formation and working-class self-activity in the formative decades of industrial capitalist development in the United States. First, these industries attracted relatively few native white men of native white parents. The Paterson textile industries, of course, employed women in large numbers. Including women and children, 63 of 9,085 Paterson textile workers were at least thirty years old and the sons of native white parents. In Cleveland, 186 of 5,730 ordinary male laborers fell in that same group. Cleveland's diverse iron and steel mills -- the city's great manufacturing enterprises (together with the Standard Oil Works of Ohio) -- attracted more old-stock males from that age group. But they still only numbered 365 of the city's 5,605 listed iron workers.

A second pattern was equally important. The *children of immigrants* -- a much neglected nineteenth-century "social category" -- joined their parents to swell the new industrial working class. Among all iron workers not yet aged thirty, 43 percent in Cleveland and 45 percent in Paterson were the children of immigrants. The percentage of Paterson male and female textile workers under the age of thirty born to foreign parents hardly differed from that which existed among iron workers.

We should keep in mind that these data are drawn from the 1880 federal manuscript census. If Dawley's periodization is correct (and no one has seen fit to dispute it), the date (apart from the data) is very important. We have described working-class composition at a critical *moment* in the development of the American working-class and American capitalism. Young workers (a very significant percentage of them first-generation native American workers) entered into a changing factory-centered system. The new industrial capitalism was new and not yet fully legitimized. (Indeed, it might soon be clear that among the bitter conflicts inside American society the struggle to legitimize industrial capitalism was second in intensity to the struggle to abolish chattel slavery.) These young workers engaged this new and changing exploitative social system. Through their parents (most of whom remained workers), they often carried old European artisan and working-class traditions with them into the New World and its factories and shops.

Self-activity among these new workers took many forms. The moment in time affected the choices they made. A tension existed within this developing working-class between individualist and mutualist ways of solving the difficulties associated with their new

TABLE FIVE

Selected Occupations of Males By Ethnicity, Cleveland, Ohio, 1880

	Laborer	Carpenter
Native White of Native White	6%	21%
Black	1%	1%
Child of Immigrant	13%	14%
Foreign-Born	80%	64%
N	5700	1960

	Shoemaker	Tailor
Native White of Native White	8%	3%
Black	1%	1%
Child of Immigrant	13%	19%
Foreign-Born	78%	88%
N	660	770

	Machinist	Molder
Native White of Native White	22%	14%
Black	---	---
Child of Immigrant	34%	34%
Foreign-Born	44%	52%
N	1470	865

	Blacksmith	Other Iron Workers
Native White of Native White	8.5%	9%
Black	.5%	---
Child of Immigrant	19 %	22%
Foreign-Born	72 %	69%
N	800	2470

TABLE SIX

Selected Occupation of Males by Age and Ethnicity, Cleveland, Ohio, 1880

	Laborer		Shoemaker		Tailor		Carpenter	
	Under 30	30+	Under 30	30+	Under 30	30+	Under 30	30+
Native White of Native White	9%	5%	7%	8%	4%	3%	18%	22%
Black	1%	1%	1%	1%	1%	1%	2%	1%
Child of Immigrant	32%	3%	39%	3%	19%	1%	31%	7%
Foreign-Born	58%	91%	53%	88%	76%	95%	49%	70%
N	2000	3730	170	490	280	490	540	1420

	Blacksmith		Machinist		Molder		Other Iron Workers	
	Under 30	30+	Under 30	30+	Under 30	30+	Under 30	30+
Native White of Native White	9%	8%	20%	25%	16%	17%	9%	8%
Black	1%	1%	-	-	-	-	-	-
Child of Immigrant	41%	5%	50%	14%	47%	20%	38%	3%
Foreign-Born	49%	86%	30%	61%	37%	63%	53%	89%
N	310	490	790	680	490	375	1320	1150

TABLE SEVEN

Selected Occupations of Males and Females by Ethnicity and Age, Paterson, New Jersey 1880

ALL	Machinist	Other Iron Worker
Native of Native White	23%	21%
Child of Immigrant	27%	25%
Immigrant	50%	54%
N	1070	1160

ALL	Male Textile	Female Textile
Native White of Native White	11%	16%
Child of Immigrant	30%	45%
Immigrant	59%	39%
N	4340	4745

BY AGE	Machinist		Other Iron Worker	
	Under 30	30+	Under 30	30+
Native White of Native White	22%	24%	24%	21%
Child of Immigrant	45%	17%	44%	11%
Immigrant	33%	59%	32%	68%
N	390	680	490	670

	Male Textile		Female Textile	
	Under 30	30+	Under 30	30+
Native White of Native White	15%	5%	16%	10%
Child of Immigrant	44%	4%	49%	22%
Immigrant	41%	91%	35%	68%
N	3080	1260	4175	570

dependent class position. High rates of geographic mobility and labor turnover were one solution to these troubles. Protracted strikes, cooperatives, the rapid growth of trade unions and especially the Knights of Labor, the extensive occurrence of boycotts and sympathy strikes, near general strikes, and a lightning flash of labor politics served as alternative solutions.

Working-class self-activity in the 1870s and 1880s was the culmination of a process of class formation and development that had started decades earlier. Just how the new educational system affected this process and especially its young first-generation native-born workers is very important. But before we can see how the emerging educational system affected the contradictory tensions within working-class life and shaped the legitimacy debate, American class development itself awaits refined and detailed study. More and more, the 1880s are emerging as the critical decade in American working-class history. Processes that began a half century earlier culminated in an extraordinary outburst of working-class self-activity in these years. It may yet turn out that Progressive educational reform was the stepchild of the eight-hour strikes of 1886. This should be clearer as historians of the working-class continue to distance themselves from the blinders imposed upon them by overdetermined and reactive "models" meant to explain the beliefs and behavior of working-class(and lower-class) men and women.

APPENDIX A

CONFERENCE ON THE HISTORIOGRAPHY OF EDUCATION AND WORK

August 17-18, 1979

Participants:

Anderson, James - University of Illinois

Clifford, Geraldine - University of California, Berkeley

Cuban, Larry - Superintendent of Schools, Arlington, Va.

Edson, C. H. - University of Oregon

Fass, Paula - University of California, Berkeley

Graham, Patricia - Harvard University

Grubb, Norton - University of Texas

Gutman, Herbert - City University of New York

Hogan, David - University of Pennsylvania

Kaestle, Carl - University of Wisconsin

Kett, Joseph - University of Virginia

Lazerson, Marvin - University of British Columbia

Muraskin, Lana - National Institute of Education, Washington, D.C.

Rodgers, Daniel T. - University of Wisconsin

San Miguel, Guadalupe - University of California, Santa Barbara
(invited but unable to attend because of accident)

Wirth, Arthur - Washington University

Others attending:

Bernstein, Barton - Stanford University (History Dept.)
Cary, Victor - Stanford University (Education)
Farrar, Eleanor - The Huron Institute, Cambridge, Mass.
Fasano-Navach, Carla - OECD, Paris, France
Finnan, Christine - Stanford University (Education)
Freedman, Estelle - Stanford University (History Dept.)
Hansot, Elisabeth - Kenyon College, Gambier, Ohio
Johnson, James - Far West Laboratory, San Francisco
Mitchell, Theodore - Stanford University (Education)
Peterson, Robert - Far West Laboratory, San Francisco
Poss, Katherine - Stanford University (Education)
Pratzner, Frank - National Center for Research on Vocational Education
Ohio State University
Schlossman, Steven - University of Chicago (Education)
Stake, Robert E. - Center for Instructional Research and Curriculum
Evaluation, University of Illinois
Strober, Myra - Stanford University (Graduate School of Business)
Sykes, Vivian - Stanford University (Education)

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Tyack, David B. - Principal Investigator (Stanford University)
Kantor, Harvey - Research Assistant and Co-editor, (Stanford University)